IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PACT XXP TECHNOLOGIES, AG	*	Civil Docket No.
	*	2:07-CV-563
VS.	*	Marshall, Texas
	*	
	*	May 14, 2012
XILINX, INC. & AVNET, INC.	*	8:14 A.M.

TRANSCRIPT OF JURY TRIAL
BEFORE THE HONORABLE JUDGE ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE

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P R O C E E D I N G S

(Jury out.)

LAW CLERK: All rise.

THE COURT: Good morning. Please be seated.

For the record, we're here this morning for the trial of PACT XPP Technologies versus Xilinx, Et Al., which is Case No. 2:07-563.

It's my understanding that there are some issues that counsel would like to address before we bring the jury in.

So if counsel would make their introductions, we'll address those issues.

MR. GRINSTEIN: Your Honor, Joe Grinstein representing the Plaintiff PACT. I've got my team with me here today.

THE COURT: All right. Thank you, Mr. Grinstein.

MR. BAXTER: Morning, Your Honor, Sam Baxter, and we're ready, Your Honor.

THE COURT: All right. Mr. Grinstein, do you want to start? Do you have issues that the Court needs to address?

MR. GRINSTEIN: Yes, Your Honor. Again,

Joe Grinstein representing the Plaintiff, PACT. I've got the first issue and the issue relates to Defendants' opening demonstratives. And I have to say actually this is a pretty serious issue if not, you know, I don't like the looks of the demonstrative, it's not -- you know, it's not the right color.

I think we're going to have a very serious Markman 02 issue in this case. And it's suggested to me by the Defendants' demonstratives -- can I have the ELMO, please? Your Honor, there's a series of demonstratives that the Defendants have proposed to show to the jury this morning. I'm showing you one of them. This particular one discusses the re-examination of the PACT '181 patent.

THE COURT: Mr. Grinstein, before we get too far into that, can you tell me, do you have other issues? I'd like to get an idea --

MR. GRINSTEIN: Oh, I'm sorry.

THE COURT: -- of what all we have so that I can make sure we reach what we need to reach.

MR. GRINSTEIN: With respect to objections to their demonstratives, my only issue is this 02 issue. I think we have a couple of issues with document objections and deposition objections. I think they're relatively quick.

THE COURT: Are those issues that you expect to be material this morning?

MR. GRINSTEIN: No. I expect them to be material this afternoon, Your Honor.

THE COURT: Okay. And is that it from Plaintiff's side?

MR. GRINSTEIN: Yes, Your Honor.

THE COURT: Okay. Mr. Baxter, you have other issues that you wanted to raise before we bring in the jury this morning?

MR. BAXTER: Yes, Your Honor, there is still I think the Court has had under consideration what has been marked as DX 912, which is the e-mail from Mr. Vorbach and one of his engineers that the Court had carried along. It was the e-mail, Your Honor, in which they said that the --

THE COURT: Can you hear all right? Do we need to -- if you could either raise that mic up so that you get mic'd better we'll make a better record.

Thank you.

MR. BAXTER: All right. Thank you, Your Honor. That was the e-mail, Your Honor, in June of '05 which Mr. Marcus Weinhardt sent an e-mail to Mr. Vorbach about the DSP48 which had come out and he said that he looked at it, it didn't have anything to do with XPP.

THE COURT: All right.

MR. BAXTER: There was a document attached to that e-mail, Your Honor. The document's in, which is the manual for the DSP48. That's in. It was the e-mail that the Court still has under consideration.

THE COURT: Any other matters that the defense wanted to raise?

MR. BAXTER: That's -- that's all, Your Honor, except for the depositions and -- and a few, I think, exhibit --

THE COURT: Okay. Good. Thank you.

MR. GRINSTEIN: Oh, Your Honor, I'm -- I don't have complete control of the issues as well as I'd like this morning. We also have a couple of questions to ask about the proper scope of testimony with respect to Your Honor's rulings yesterday on Motions in Limine Number 12 and 13. We want to make sure we don't step somewhere where we're not supposed to step.

THE COURT: All right. And do you expect that to be an issue that will come up in the morning session?

MR. GRINSTEIN: I would like to be careful. I don't want to go somewhere where I'm not supposed to go on opening --

THE COURT: All right.

MR. GRINSTEIN: -- so I think those I probably should be careful about, Your Honor.

THE COURT: All right. Well, let's drop back, then, to the demonstrative that you were starting to address.

MR. GRINSTEIN: Your Honor, one of the demonstratives that the Defendants intend to put before the jury is this demonstrative that discusses what was said in the re-examination of one of PACT's patents. And the obvious point behind this demonstrative is to argue to the jury what the claims of PACT's patents mean.

In fact, there are several demonstratives just like this one, there's a demonstrative right here that discusses the summary of the patent; demonstrative right here that talks about the abstract of the patent. The re-examination file history is potentially relevant to three possible issues, Your Honor.

Issue No. 1 is if there was a prosecution history, estoppel issue or a DOE issue, then statements from the re-examination file history would be proper. That's not the case here. DOE has been limined out. Second re-examination is relevant to prior art, what was before the Patent Office on the prior art, what wasn't, what the Patent Office decided. That's not the issue

right here. This is not discussing prior art.

The third relevance of re-examination history is to use that history to define what the claims mean, and that is exactly what the Defendants mean to do with this particular exhibit.

What they are talking about is trying to define what the bus system in our patents mean, what the bus interface, what bus system control, all of these things that are underlined they intend to argue to the jury, Your Honor -- Ladies and Gentlemen of the Jury, PACT's patents cover an invention which means this and you can see what that invention means by looking at the re-examination file history.

That's the exact same thing that they do with these other exhibits, the summary, the abstract. They're arguing claim meaning, and that is not a proper issue for the jury under Markman and it's not a proper issue for the jury under 02.

It is error to allow the Defendants to get before the jury and argue to the jury that the claims mean anything other than what the claim language says and what Your Honor's definitions of those claim language is. They can't get up here and argue I know what the claim language says, but Ladies and Gentlemen of the Jury, look at this stuff and that will help you

understand what the definitions and constructions are. That can't be a proper use of this type of evidence.

Now, I'm not saying that there isn't a proper use for some reason for the re-examination; in fact, it's very relevant to prior art. I'm not saying that looking at the patents and the abstracts and drawings aren't relevant to some potential issues in this case, but they are certainly not relevant to rearguing claim meaning to the jury. That is a province exclusively of this Court, not of Defendants' counsel.

THE COURT: All right. Mr. Baxter?

MR. BAXTER: I guess this will be the first patent case I've ever seen, Judge, where they say we're going to put the patent in evidence but you can't show the jury anything from the patent, which is what their argument really is. We're not rearguing the claim language, what we're trying to do, Your Honor, you know all the slides they have with the fences, we're just trying to find those fences for the jury. And we're trying to tell the jury, look, here's what they told the Patent Office and here's what they told the world the patent is about.

In the re-exam, it's why we believe, in fact, the re-exam was granted and then why it was issued over our opposition is that they put language in there

that moved the fences in a narrow way. And so it's not rearguing the claim language at all, Your Honor, it's simply saying this is what they told the Patent Office their patent was about.

And certainly we get to show the jury the abstract and the summary of the invention that the inventors swore was true when he filed his invention and that's all we're using it for.

THE COURT: And are you going to be arguing to the jury that the interpretation of the claims should be based on what you're pointing out to them?

MR. BAXTER: No, Your Honor, I'm simply going to argue to the jury that they told the Patent Office and told the world when they filed their patent that as far as their bus system control is -- is in the Patent Office -- in the patent in the Patent Office, it didn't have to have any programming by the programmer, is what they told the Patent Office. And -- and that's -- doesn't contradict anything in the Court's claim construction.

THE COURT: All right. Mr. Grinstein?

MR. GRINSTEIN: Your Honor, I feel like I could package up Mr. Baxter's argument and send it straight to the Federal Circuit and that would be a

point of reversible error. I mean, Mr. Baxter just said that he wants to argue the re-examination file history, he wants to argue the abstract of the patent to, quote, find the fences for the jury. It is not his job to find the fences for the jury, Your Honor, it is your job to find the fences for the jury.

Judge Everingham already found the fences for the jury, Your Honor continues to -- to play that role. But to get up here and use the re-examination and say, you know, PACT claimed that its invention was X, Y or Z, so therefore you the jury shouldn't find infringement because look, PACT claimed it was X, Y or Z, that is purely rearguing Markman. I -- I wouldn't know how to describe it more cleanly than rearguing Markman.

The only thing that defines the invention are the claims of that patent and this Court's claim constructions. And to get up here and argue that, well, PACT can't get up here, is estopped from claiming otherwise or PACT made inconsistent statements, those were all arguments for Markman. That time has come and passed, and we cannot have a jury trial here where both sides are getting up and rearguing what the claims mean.

THE COURT: All right. With respect to your next objection that you wanted to raise for this

morning, let's go ahead and get them all in.

MR. GRINSTEIN: Your Honor, Mr. Lahad is going to handle this. This is the exhibit issues. We have one particular issue with a slide which we've worked out with counsel, so Mr. Lahad will go next.

THE COURT: All right.

MR. LAHAD: Good morning, Your Honor, John Lahad for the Plaintiff PACT. I believe the Defendants have some deposition designation objections, but I'd like to bring up a couple of points or seek some clarification on two points from Your Honor's limine rulings --

THE COURT: All right.

MR. LAHAD: -- yesterday. Again, I just -- they're fairly clear, but I want to be extra clear. In docket 357, which is the order on the parties' motions in limine with respect to Defendants' Motion in Limine No. 1, the Court said -- it granted as modified the motion and said no reference shall be made to the specific amount of revenue or profit earned from the accused products or in total. Your Honor, we have no intention of mentioning billions or millions of total revenues or profits.

My main concern is average selling price, and the use of average selling price was discussed

heavily throughout the briefing on Defendants' motion to strike our damages expert, Mr. Nawrocki. In the order on that motion, the Court denied the motion and said that the entire market value rule was not applied and so I'd -- I'd just like to get some clarification on where the Court stands on average selling price as it relates to --

THE COURT: Average selling price of?

MR. LAHAD: -- the accused products.

THE COURT: You're talking specifically about the Defendants' chip; is that what we're discussing here?

MR. LAHAD: Yes, sir.

THE COURT: And what -- what evidence do you want to offer on that?

MR. LAHAD: Simply the average selling price of the accused products, Your Honor.

THE COURT: Which is what?

MR. LAHAD: Which is approximately $211. I'll add that Defendants' expert similarly uses the average selling price of the accused products, albeit on a --

MR. CASSADY: I tried to search -- search what it is, Your Honor. We're not going to have any objections to the reference of the average selling price

as long as it doesn't go further than that. I just don't want somebody bringing up they sold this many million chips next to $230 times equals this many billions, that's what I don't want.

THE COURT: All right. Does that provide the extra clarification, Mr. Lahad?

MR. LAHAD: Yes, it does, Your Honor.

THE COURT: Okay. Good.

MR. LAHAD: My second question relates to the Court's ruling on Defendants' Motion in Limine 12, which was -- dealt with the RocketChip's acquisition and I understand that the acquisition price requires leave from the Court.

The second part of that order, and I'm looking at docket 358, the second part of that order references projected revenues from the RocketChip's acquisition, and I'm not trying to parse the language of the order too much, but I'm wondering if the Court is making any kind of distinction between revenues and profitability projections -- revenue projections and profitability projections?

It doesn't mention it in the order. I know it was in the briefing and so it's clear from the order that, you know, revenues or projected revenues from the RocketChip's acquisition, you know, as the

Court said if that revenue projection is incremental revenue related to the alleged infringement, then the Court is inclined to admit the evidence. The -- the order is silent on profitability and profitability projections.

THE COURT: And what -- specifically what evidence with respect to profitability projections are you seeking to use?

MR. LAHAD: That it's simply a percentage, Your Honor, by incorporating this acquired technology Xilinx expected profitability to increase by such and such percent, and I won't be arguing by 300 million or 400 million or any of the large numbers that Defendants are concerned about.

THE COURT: All right.

MR. LAHAD: I don't know if Mr. Cassady can short circuit this one as well.

MR. CASSADY: Not this time, Your Honor.

THE COURT: Frankly I don't think that what he's describing runs afoul of what our concern was. So I -- if -- if your evidence is going to be within what you described now --

MR. LAHAD: Yes.

THE COURT: -- that's not a problem under our ruling.

MR. LAHAD: Thank you, sir. That's all I have.

THE COURT: All right.

MR. CASSADY: Your Honor, just -- just so I understand and make clear, we're talking about just percentages, right, not dollar figures?

MR. LAHAD: That -- I don't plan to use dollar figures, Your Honor.

THE COURT: All right. Any other issues for the Plaintiff before we start?

MR. GRINSTEIN: No, Your Honor.

THE COURT: All right. Mr. Baxter, did you have other issues that you wanted to raise before the morning session?

MR. AROVAS: Your Honor, maybe I can get up and just raise the -- the issues. I think there are -- is one open issue on the question of deposition designations. There are also some objections to witnesses -- I'm sorry, documents that will be used with one of the expert witnesses potentially in the afternoon. I'm not sure if you want to address all those this morning.

THE COURT: If you want to you -- you can go ahead and get them out on the table, so to speak, but I don't know that we need to address them before we

start this morning, but what -- what are --

MR. AROVAS: Okay.

THE COURT: -- the issues?

MR. AROVAS: So I'll just get them on the record. So --

THE COURT: Okay.

MR. AROVAS: -- with regard to the Plaintiff's technical expert witness, Dr. Tredennick there are a number of documents we will be objecting to as not in the expert report. And as I understand the issue, just to encapsulate it for Your Honor, is that there were a number of schematics that based on the production date, I think, were produced after the scope of the -- after the expert reports were filed.

No supplemental expert report was done and we just don't want to be in a position learning about documents that an expert is going to use for the first time on the stand and so we think there should be a clean rule in the case documents that are in a -- a witness' expert report as long as pre-admitted can be used. Documents that are not in an expert witness' report shouldn't be used and that's how I understand the issue.

THE COURT: Well, no exhibit should be used that have not been tendered to the other side. Are

you -- have you been tendered exhibits that you're objecting to on that basis?

MR. AROVAS: Yeah, we have the exhibits, they're just not in the witness' expert report.

THE COURT: And did you raise those objections earlier in the process?

MR. AROVAS: Well, we just found out last night that these -- that these documents were going to be used with this expert witness. So the --

THE COURT: Well, I'm not sure what you mean by found out they're going to be used. Were they on the exhibit list?

MR. AROVAS: They're documents that are on the exhibit list, yes.

THE COURT: And was an objection made?

MR. AROVAS: No, there's no objection to the documents being used in the case. For example, they could -- they're -- they're -- by the way, they're Xilinx's documents, so they could cross examine our witnesses on them and there's no objection to them cross examining our witnesses on those documents.

The issue we have is the night before witnesses go on the stand, each side tenders or -- or gives a list of the exhibits they plan to use with each witness. So this was the first time we learned that the

expert is going to give expert opinions on these particular documents.

THE COURT: So you had no notice, you're saying, that this expert had considered these documents?

MR. AROVAS: Exactly, Your Honor, or would use them as the basis for his opinion.

THE COURT: All right. Let me hear from the Plaintiff, then, on that.

MR. GRINSTEIN: Your Honor, these documents relate to the expert report of Dr. Nick Tredennick, our infringement expert. In his expert report he said Xilinx has not produced to me specific schematics as of the time of my report; therefore, I reserve the right to rely upon those schematics and look at them after Xilinx produces them, but you put me in the position of me filing a report and not being able to discuss them.

So we plainly put them on notice that we were interested in these schematics, that Dr. Tredennick would review them and they took his deposition after he issued his report. So I don't see what the notice, particular notice issue --

THE COURT: All right.

MR. GRINSTEIN: -- here is.

THE COURT: Let me just make sure I

understand. Are you saying he reviewed those schematics before his deposition?

MR. GRINSTEIN: I believe that's the case, yes.

THE COURT: All right. And did he testify in his deposition about them?

MR. GRINSTEIN: I don't think that's the case. I don't think he was asked about them.

THE COURT: Did he ever -- did he or you ever issue any supplemental report or other notice that he had after his report --

MR. GRINSTEIN: No, Your Honor --

THE COURT: -- examined those?

MR. GRINSTEIN: -- we did not. The only notice that we issued was in the report saying when they produced them, I am going to consider them. And, I mean, this -- Your Honor, this is four schematics out of hundreds. They knew that we wanted them. I mean, there's -- I -- I guess we should have filed a supplemental report. On the other hand, we told them that we wanted these things and some of the blame is with them for not producing them before the report.

THE COURT: I understand that, but I think it's pretty basic that if your expert examines additional materials after that affect his opinions, he

has to supplement his report. If he had testified about that at the deposition, then I -- I might say no harm, no foul. But if they didn't have any notice that they needed to examine him about those schematics at his deposition, then, I mean, that's the purpose of the reporting rule.

MR. GRINSTEIN: I -- I understand, Your Honor. Respect the ruling. I just push back a little and said we did give them notice that he would be looking at them.

THE COURT: That he was going to?

MR. GRINSTEIN: He was going to look at them. It was their fault for not producing them before his report.

THE COURT: I understand that, but I -- I think that we do have to observe that line, that the expert needs to provide notice about what he's considering, and if he hadn't done that, then he won't be allowed to testify about those documents.

MR. GRINSTEIN: Yes, sir.

THE COURT: What else?

MR. AROVAS: The -- the second issue, Your Honor, relates to deposition designations, and in the Court's pre-trial proceedings, we had times that the parties were supposed to exchange deposition

designations, counters, counter counters, that whole process so that the parties had adequate time to prepare their cases based on what was going to potentially come into evidence and prepare counters and package everything up for the jury.

In the most recent exchange of what was supposed to be the cut down list of deposition designations to actually be used in the case, PACT has now gone beyond their original deposition designations, done some entirely new designations that were never identified in -- in advance of the pre-trial process. And obviously that puts us in the position just days before trial now trying to deal with new deposition testimony and, you know, issues that could be raised by that.

So the objection is to PACT adding to the deposition designations that it exchanged in the pre-trial process.

THE COURT: And these are same witnesses, just additional passages?

MR. AROVAS: That's -- that's right, Your Honor.

THE COURT: All right. And who can speak to that for the Plaintiff? Mr. Lahad?

MR. LAHAD: Yes. Thank you, Judge.

First of all, I think that this -- this issue applies only to a single deponent, and that's Mr. Wittig. I think we've reached agreement on the other deponents. Ostensibly Defendants want to marry us to our July 2011 designations. That was about a year ago. A lot has happened in this case. And as I understand their argument, it's -- it's one of notice.

A year ago when we did a -- initially exchanged deposition designations, I'll admit that this witness' designations were a little different, didn't include the ones at issue today. But at the same time, if they're trying to ascribe a certain level of holiness or sanctity to these July 2011 designations --

THE COURT: When did you first give them notice of the additional designation?

MR. LAHAD: Yesterday. Two days ago.

THE COURT: And how much additional language are we talking about?

MR. LAHAD: I think it's a handful of pages, two or three pages worth.

THE COURT: And what's the reason for adding those two or three pages?

MR. LAHAD: I think just the -- the contours of the case changed somewhat, and you know, in the -- in the past year the scope of the case as far as

patents at issue, as far as accused products at issue.

THE COURT: Unless you have some argument of some extraordinary need for this, I -- I think that yesterday's too late to add designations. If you want to give me a copy of them, I'll look at them and see if -- if you think you can show some good cause for the lateness of it, but --

MR. LAHAD: I'll be happy to do that, sir.

THE COURT: All right. That's fine. I assume that is --

MR. LAHAD: That shouldn't affect anything this morning, Your Honor.

THE COURT: Okay. Well then, I'm going to take the matter regarding the demonstrative exhibit under advisement, and I'll be back in a few minutes and let you know.

We are planning to bring the jury in and out of the courtroom through that side door. We've moved the tables to try and accommodate that. It's much more convenient for the jury. I know it's going to be a slight inconvenience to your side, but if you can just be aware that we want to keep a path open through there, I'd appreciate it. And if you -- if you could refrain from tripping them, that'll -- that'll also help out

long-term. So we'll take a recess at this time.

LAW CLERK: All rise.

(Recess.)

(Jury out.)

LAW CLERK: All rise.

THE COURT: Thank you. Please be seated. Before we bring in the jury, I want to address the items that remain from this morning's discussion. With respect to DX 912, I've had a chance to look at that again, and that will be excluded at this time, unless the defense believes that Mr. Vorbach opens the door to that, in which case you can approach and we'll discuss it at that time.

For the record, I think that his belief as to whether infringement has occurred is of questionable relevance, but if that matter is explored, then it may be proper as to that.

With respect to the use of the demonstratives, I do believe that the proper argument about the meaning of the claim terms is their plain and ordinary meaning, other than the construction that's been given by the Court. I don't believe that prosecution history can be allowed to vary that meaning, other than through the claim construction process. So the Defendant -- the Plaintiff's objection to the use of

those demonstratives during opening statement is sustained.

And with that, we'll bring in the jury. I have probably 20 minutes of preliminary instructions to give them, and then we'll turn to the opening statements. And I would like to hand out the juror notebooks during the preliminary instructions, so if those are ready, I'd ask that we get those to Ms. Lockhart.

MR. AROVAS: Your Honor, could I just ask for one clarification on this issue with regard to some of the opening demonstratives?

THE COURT: Okay.

MR. AROVAS: And the reason I'm asking is because, you know, obviously like -- like many patent cases, there will be a number of witnesses talking about the background of the invention, where it came from, the problem, the solution, that sort of thing. Obviously, the specification is the background, it's the written description of what they did.

We do believe that everything in there is entirely consistent with the ordinary meaning of the terms, whether in the claim construction or not in the claim construction, and have no intent to contradict the claim construction at all. However, this issue will

come up again later with the witnesses. Obviously, both inventors are going to be testifying. I can say for sure at least one is going to testify about the problem he had to solve and how he came up with that solution, his ideas, and I just want to make sure that this ruling is not more expansive than just any suggestion of contradiction of the claim construction or the prosecution history itself.

THE COURT: I'm not worried about it. Its use during the questioning of the witnesses, I think we can handle that pretty easily at that time. I understand that you're going to be addressing that through your experts, and we -- you know, that's expected, but I am concerned about introducing it in opening statements in that manner.

MR. AROVAS: Okay. Now, that's the -- the prosecution history. Is the -- with regard to the specification, can the specification be used in opening statement to give a background for the invention, say here is the problem they were trying to solve and here's their idea about solving it?

Obviously, the claim construction will be used independently and say this is -- and it's our position, we think it's a great claim construction and we're going to embrace it and do not intend in any way

to contradict it.

THE COURT: Well, that -- I don't have an objection that I'm aware of to that use of the specification.

Mr. Grinstein?

MR. GRINSTEIN: I want to be clear, Your Honor, when I mention the prosecution history I then flip forward to the abstract, their abstract of the patent slide, and said that they were doing the exact same thing.

I mean, I know that the specification has usefulness in the trial, but the usefulness of it in citing to spec cites and saying this is what the invention means and jury when you're considering what the invention means, you should consider these spec cites, that's a Markman issue, it is not a -- it's not a jury issue. So they're -- what I -- I fear is going to happen is they'll try to slide in claim construction by this argument of background.

I know what these claim terms mean, I know what this means, but trust me, the real thing he was trying to solve was, you know, making a green car and this is not a green car case.

THE COURT: I think they have to be able to talk about the specifications. I'm not going to --

the slides that you showed me were about the re-exam history and that's what I was addressing.

MR. GRINSTEIN: Thank you, Your Honor. And before we start openings, I've got a very mundane issue. Your Honor's rule about counsel's activities, is it the standard an arm's length away from the podium? I don't want to run afoul of, you know --

THE COURT: If you're big enough here you can get to the jury box from -- in an arm's length. So what I would ask you to do is to not get closer to the jury than the podium is, all right?

MR. GRINSTEIN: Halfway line there.

THE COURT: And I don't care if you wander --

MR. GRINSTEIN: Won't cross it.

THE COURT: -- all the way back to the wall in the other direction, but if you -- if you would not -- I really think the jury would object to your invading their space anyway. It's not just my rule. I think they want you to stay, you know, that far away.

MR. GRINSTEIN: I understand, Your Honor.

THE COURT: Not you specifically.

MR. GRINSTEIN: No offense taken.

THE COURT: All right. In that case,

we'll bring in the jury. Please rise.

(Jury in.)

THE COURT: Good morning. Please be seated.

Ladies and Gentlemen, I want to welcome you back this morning. I want to thank you for being here on time. We're going to try to keep the case running on time so that we can stick to the schedule that I told you about during the jury selection two weeks ago. I do have some preliminary instructions that I want to give you this morning before we start with the opening statements from the lawyers and get on to the evidence.

You have now been sworn as the jurors in this case, and as the jury, you will decide all of the facts in the case. I will, as the Judge, give you instructions on the law, decide any questions of law that come up during the trial, and -- and handle matters of procedure, and at the end of the evidence, I'll give you detailed instructions about the law that you're to apply in deciding the case, and I'll give you a list of questions that you're to answer. Your answers to the questions will need to be unanimous.

I want to tell you a little bit about what this case is about. This case involves a dispute

relating to two U.S. patents. Before summarizing the positions of the parties and the issues involved, I want to take a minute to explain again for you what a patent is and how it is obtained. Patents are granted by the U.S. Patent and Trademark Office, which is referred to often as the PTO.

A valid U.S. patent gives the patentholder the right for up to 20 years from the date the patent application was filed to prevent others from making, using, offering to sell, or selling the patented invention within the United States or from importing it into the United States without the patentholder's permission.

A violation of the patentholder's right is called infringement. The patentholder may try to enforce a patent against persons believed to be infringers by a lawsuit filed in federal court.

The process of obtaining a patent is called patent prosecution. To obtain a patent, you must first file an application with the PTO, which is an agency of the federal government that employs trained examiners who review applications for patents. The application includes what is called the specification, which contains a written description of the claimed invention, telling what the invention is, how it works,

how to make it, and how to use it.

The specification concludes with one or more numbered sentences and these are what you'll hear about as the patent claims. And I'll show you in a few minutes the patents involved in this case and the claims involved. Once a patent is granted by the PTO, the numbered claims define the boundaries of its protection and give notice to the public of what those boundaries are.

After the applicant files the application, an examiner reviews the application to determine whether or not the claims are patentable and whether they're appropriate for patent protection and whether or not the specification adequately describes the invention that's claimed.

In examining a patent application, the examiner reviews certain information about the state of the technology at the time the application was filed. The PTO searches for and reviews information that is already publicly available or that is submitted by the applicant. This information is called the prior art. The examiner reviews this prior art to determine whether or not the invention is truly an advance over the state of the art at the time. Prior art is defined by law, and I'll -- I'll give you specific instructions as to

what constitutes prior art. However, in general, prior art includes public information that existed before the claimed invention was made or more than one year before the application was filed. A patent lists the prior art that the examiner considered, and this is -- this list is called the cited references.

After the prior art search and examination of the application, the examiner informs the applicant in writing of what the examiner has found and whether the examiner considers any claim to be patentable and thus would be an allowed claim. This writing from the examiner is called an office action.

If the examiner rejects the claims, the applicant has an opportunity to respond to the examiner and to try and persuade the examiner to allow the claims or to change the claims or submit new claims. This process may go back and forth for some time until the examiner is satisfied that the application meets the requirements for a patent and the application issues as a patent or that the application should be rejected and no patent should issue.

Sometimes patents are issued after appeals within the PTO or even to a Court. The papers generated during these communications between the examiner and the applicant are called the prosecution

history.

After a patent has been issued, third parties, who are people other than the applicant, may ask the PTO to reconsider the issuance of a patent. This process is referred to as re-examination. A third party initiates the re-examination process by filing a re-examination request at the PTO, which can include submitting new prior art. If the PTO agrees with the requester that there's a substantial new question of patentability, the PTO will re-examine the patent.

The re-examination process proceeds in much the same way as the original prosecution. The PTO issues office actions that set forth its analysis and conclusions, and the patent owner is allowed to respond, amend claims, or add new claims. If the PTO agrees that the claims are patentable, it issues an official re-examination certificate.

The fact that the PTO grants a patent does not necessarily mean that any invention claimed in the patent, in fact, deserves the protection of a patent. While the issued patent is presumed valid, a person accused of infringement has the right to argue here in federal court that a claimed invention in the patent is invalid because it does not meet the requirements for a patent.

It's your job to consider the evidence presented by the parties at this trial and determine independently whether or not the patent is invalid.

To help you follow the evidence, I'll give you a summary of the positions of the parties. The parties in this case are PACT XPP Technologies, AG, which the parties and I will refer to as PACT, P-A-C-T, and Xilinx, Inc., and Avnet, Inc., which the parties and I will refer to as Xilinx.

The case involves U.S. Patent Nos. 6,119,181 and 6,338,106, and you don't have to try and learn all those numbers. Those patents were obtained by Martin Vorbach and Robert Munch and transferred by them to PACT. For your convenience, the parties and I will refer to these patents by their last three numbers, namely, as the '181 patent and the '106 patent.

PACT filed suit in this Court seeking money damages from Xilinx for allegedly infringing the '181 and '106 patents by making, using, selling, or offering for sale in the United States products that PACT argues are covered by four claims of the '181 patent, and I'll point those out to you in a moment. Those are claims number 1, 3, 17 and 30. You don't have to remember those numbers now. And by one claim of the '106 patent, which is Claim 8.

PACT also argues that Xilinx has actively induced infringement of these claims by other people. Xilinx denied -- denies that it has infringed these claims and Xilinx also argues that these claims are invalid.

I will instruct you later as to the ways in which a patent may be invalid, but in general, a patent is invalid if it is not new or is obvious in view of the prior art at the relevant time. A patent is also invalid if its specification is not detailed enough to demonstrate that the applicant actually possessed the invention as broadly as claimed in the numbered claims of the issued patent.

Your job will be to decide whether or not those claims, Claims 1, 3, 17, and 30 of the '181 patent and Claim 8 of the '106 patent have been infringed and whether or not those claims are invalid.

If you decide that any claim of the '181 patent or the '106 patent has been infringed and is not invalid, you'll need to consider whether PACT has an obligation to notify Xilinx of the alleged infringement, and I'll tell you more about that, and to decide any money damages to be awarded to PACT to compensate it for the infringement.

You'll also need to make a finding as to

whether or not the infringement was willful. If you decide that any infringement was willful, that should not affect any damage award you give. I'll take willfulness into account later if you find that it exists.

I have already for the Court determined the meaning of the claims of the two patents that are at issue. You'll be given a document in a moment that reflects those -- those constructions, those meanings that I have determined.

For any claim term which I've not provided you with a definition in this document, then you should simply apply the ordinary meaning to that term. You are to follow my definitions of the terms throughout the case. However, my interpretation of the language of these claims should not be taken by you as an indication that I have any view one way or the other regarding issues of infringement and invalidity. Those issues are for you to decide. And I will provide you with more detailed instructions on the meaning of these claims at the end of the trial before you begin your deliberations.

In deciding the issues that are before you, you'll be asked to consider specific legal rules, and I'll give you an overview of those rules now and

then much more detailed instructions later.

The first issue you'll be asked to decide is whether Xilinx has infringed the claims of the '181 patent or the '106 patent. Infringement is assessed on a claim-by-claim basis, and there are, as I've told you, five claims between the two patents at issue here.

Therefore, you may find that there is infringement as to one claim but not infringement as to another.

There are a few different ways that a patent may be infringed, and I'll give you more details, but generally, Xilinx may infringe either of these patents by making, using, selling, or offering for sale in the United States or importing into the United States a product that meets all of the requirements of one of the numbered claims. Xilinx may also indirectly infringe these patents by inducing another person or company to infringe them.

Another issue you'll be asked to decide is whether either of these patents is invalid. A patent may be invalid for a number of different reasons including because its claims -- it claims subject matter that is not new or is obvious. For a claim to be invalid because its not new, Xilinx must show by clear and convincing evidence that all of the elements of a

claim are present in a single previous device that was publicly used or sold or sufficiently described in a single previous printed publication or patent. And, again, those are what we call prior art. If a claim is not new, it is said to be anticipated.

Another way that a claim may be invalid is that it may have been obvious. Even though every element of a claim is not shown or sufficiently described in a single piece of prior art, the claim may still be invalid if it would have been obvious to a person of ordinary skill in the field of technology of the patent back at the relevant time.

You'll need to consider a number of questions in deciding whether the inventions claimed in the '181 patent or the '106 patent are obvious. And I'll provide you more detailed instructions at the end of the case.

A patent may also be invalid if its description in the specification does not meet certain requirements. To be valid, a patent must meet the written description requirement. In order to meet this written description requirement, the description of the invention in the specification portion of the patent must be detailed enough to demonstrate that the applicant actually possessed the invention as broadly as

claimed in those numbered claims of the issued patent.

If you decide that any claim of the '181 patent or the '106 patent has been infringed and is not invalid, you'll need to decide any money damages to be awarded to PACT to compensate it for the infringement. A damages award should be no less than what PACT would have received if it had been paid a reasonable royalty.

I'll instruct you later on the meaning of a reasonable royalty, but the damages you will award are meant to compensate PACT and not to punish Xilinx. You may not include in your award any additional amount as a fine or penalty above what is necessary to compensate PACT for the infringement. I'll give you more detailed instructions on calculations at the end.

Now, you're going to be hearing a number of witnesses in this case, and I want you to keep an open mind while you're listening to the evidence and not decide any facts until you've heard all of the evidence.

While the witnesses are testifying, remember that you will be the ones who have to decide the believability of the witnesses.

So while they're testifying, you should be asking yourself does the witness impress you as truthful? Does he or she have a reason not to tell the truth? Does he or she have any personal interest in the

outcome of the case? Does the witness seem to have a good memory? Did he have the opportunity and ability to observe accurately the things testified about? Did the witness appear to understand the questions clearly and answer them directly? And, of course, does the witness' testimony differ from that of other witnesses?

These are the sorts of things you should be thinking about while you're listening to each of the witnesses. You'll need to pay close attention to the testimony because you'll have to rely on your memory.

The court reporter here is taking down what is said, but that transcript will not be ready in time for your deliberations. It's prepared in the event that there's an appeal to some higher court that has to review this. So you'll each have to rely upon your memories.

In a moment, you're going to be given a notebook. One of the things in the back of that notebook are blank pages that you can use to take notes. I see that you have steno pads now. It's up to each of you to decide whether or not you want to take notes and how detailed you want your notes to be. But remember that those notes are for your own personal use. You have to rely on your own memory of the evidence. You should not abandon your recollection because somebody

else's notes indicate something different. The notes are to refresh your recollection and -- and that's the reason for which you should be keeping them.

I'm going to ask our courtroom deputy, Jan, if she'll hand out these juror notebooks for each of you. In those notebooks you'll see that you each have a copy of the two patents that we've talked about, the '181 and the '106, and I want you in a moment to turn to those and I'll show you something.

COURTROOM DEPUTY: They're all numbered.

THE COURT: You want to help her? Yeah.

They are numbered 1 through 8 because y'all are known as Jurors 1 through 8.

You'll see when you open it that the first tab is patent number '181, and you'll see at the -- that we have highlighted the last three numbers at the top right-hand corner up there, that that's where the '181 comes from.

If you turn in that document, you'll see that toward the back, there are numbers at the top of the pages starting with 1, 2, that are numbering the columns, and if you turn to the page that has the 12 at the top of the column and you go about halfway down that column, a little past halfway down, you'll see that it says what is claimed is, and the No. 1 there should be

highlighted because that's Claim No. 1 that we talked about. And then you'll see also No. 3 is highlighted, and that's Claim 3. No. 17 is highlighted, that's on another page, if you turn over on Column 15, you'll see the No. 17 highlighted. And finally, the No. 30, which is over on Column 18 is highlighted. And I'm not going to tell you more about those now, but I just want you to know that's where you can find those numbered claims.

Then if you'll flip to the next tab, you'll see at the top we've highlighted the number '106. That's the second tab in your notebook, and that's patent '106, and the claims in it are back toward the back of that. Let me see, we get to -- there we go. On the -- where it has Column 15 up at the top of the second to the last page of that hand out, you'll see the claims start toward the bottom of Column 15, and Claim No. 8 is highlighted because that's the claim from that patent that is at issue in this case.

If you'll then flip to the next tab, which says claim constructions, you'll see just one page and that's the page that has the claim terms listed. Those are words that are found in those numbered claims that we've told you before, and then over under construction in that column, that's the definition that the Court has given you to work with as for those terms.

And you're going to be hearing a lot more about that from the witnesses, but I just want you to know where you can find those. And you can keep your notes in the back of that notebook if you want so that everything will be together for you.

And if you would just put those up for a second, I know that you'll have lots of opportunity to look through those, but I just want to now give you my final instructions before the opening statements begin.

Each side will make an opening statement in a moment. You need to understand that an opening statement is not evidence. What the lawyers tell you is not evidence, it's simply their explanation of what they expect the evidence will show you. The evidence is the sworn testimony of the witnesses together with the exhibits that are admitted into evidence for your consideration.

There are two standards of proof that you'll be asked to apply to the evidence depending on the issue you're deciding. On some issues, you decide whether certain facts have been proven by a preponderance of the evidence. That's the normal burden in a civil case. A preponderance of the evidence means that the fact to be proven has to be shown to be more likely true than not true. In other words, that the

evidence in favor of the fact being true is sufficient to tip the scale even if slightly in favor of it, more probably than not.

On certain issues in this case that I'll identify for you, you'll be applying a higher standard, and in that case, you'll be deciding whether a fact has been proven by clear and convincing evidence; that is, in those matters the question will be whether you've been left with a clear conviction that the fact has been proven. These standards are different from what you've heard about in criminal cases where there has to be proof beyond a reasonable doubt. That's a very high standard, and we use that in criminal cases deciding whether a person should be imprisoned or subjected to other penalty.

If you put all these different standards of proof on a scale, preponderance of the evidence would be at the lower end where the proof need only be enough to tip slightly in favor of the party who has the burden of proving the fact. And then all the way at the other end, at the highest end, would be proof beyond a reasonable doubt, which is in criminal cases. And then on those issues where you have to determine by clear and convincing evidence, that would be somewhere in between those two standards.

After you've heard the opening statements, the Plaintiff, PACT, will present its evidence about whether some of the numbered claims of the patent have been and continue to be infringed by Xilinx and whether that infringement has been and continues to be willful.

To prove infringement of any claim, PACT must persuade you by the preponderance of the evidence that it's more likely than not that Xilinx has infringed that numbered claim. To persuade you that any infringement was willful, PACT must prove that the infringement was willful by clear and convincing evidence, the higher standard we discussed.

PACT will also present its evidence in support of damages. PACT will then present its evidence that the claims of the '181 patent and the 10 -- I'm sorry, Xilinx, the Defendant, will then present its evidence that the claims of the two patents are not infringed and are invalid.

To prove invalidity of any numbered claim, Xilinx must persuade you by that higher standard that we discussed, clear and convincing evidence, that the claim is invalid. In addition to presenting its evidence about invalidity, Xilinx will also put on evidence responding to PACT's proof of infringement and

willfulness. Xilinx will also put on evidence responding to PACT's evidence about damages.

PACT will then be given an opportunity to put on any additional evidence responding to Xilinx's evidence; that's what's known as rebuttal evidence.

After all the evidence has been presented, I will give you the final instructions on the case. The lawyers will then present their closing arguments. And you will then have the case and retire to deliberate your verdict.

At this time, I'd ask you to give your attention to counsel, and we'll start off with PACT as they present their opening statement.

MR. GRINSTEIN: Thank you, Your Honor.

Good morning, Ladies and Gentlemen of the Jury. My name is Joe Grinstein and I represent the Plaintiff in this case, which is a company called PACT.

And with us in Court today, we've got two witnesses who will be testifying to you during the course of this trial from PACT. We have Mr. Martin Vorbach, who is the lead inventor on the PACT patents and we also have Mr. Peter Weber who is the Chairman of the Board of PACT.

Now, as you all heard, this case is a business dispute about patent infringement. My client,

PACT, developed and owns these two patents, and it's our contention that the Defendants, Xilinx and Avnet, are infringing on these two patents by making, using, selling products that are covered by the claims in these two patents.

Before I go any further, though, I'd like to say a couple of words about the patent system in the United States. Now, our Founding Fathers thought that patents were so important, they established the patent system in the United States Constitution. It's right there in Article 1, Section 8. And the idea behind the patent system was to encourage scientists from all over the world to come here to the United States to publicly disclose their inventions.

The idea was if folks came here and disclosed their inventions, that American scientists could be inspired by those inventions, could learn from them, could improve upon them. Now, in exchange for publicly disclosing your invention, the United States government issues to you a patent. And you can see what a patent gives to you on the very first page of the patent. It's right there on the first page. If you are granted a patent, you are given the right to exclude others from making, using, or selling anything that is covered by your patent. So that's how patent rights

work.

You can kind of think like a patent as a deed to property. You know, every property has its boundaries. And for a patent, the boundaries are in the claims. The claims define where your intellectual property starts and stops. And if you have a piece of property like that, say you have a property like that and maybe your property has some oil on it, an oil company can't just come on to your property and start drilling without your permission. That would be trespassing. Patent rights are much the same way.

If you own a piece of intellectual property, someone can't come in and start using your patented inventions without your permission. That would be trespassing. And that's what we've got here.

This is a case of patent infringement because the Plaintiff, PACT, is going to prove to you in this case that the Defendants, Xilinx and Avnet, are trespassing on PACT's patented inventions. Although I will tell you, I think during the course of this case, you're also going to come to understand that this case is about something more important than simple trespassing.

This case is about doing the right thing because the evidence is going to show that for the last

decade, the Defendant, Xilinx, has known about PACT's patents and has known that it needed to use PACT's patents in its products. But Xilinx has consistently refused to do the right thing by PACT.

As far back as 2003, Xilinx was saying these sort of things about PACT's patents. These internal Xilinx documents says PACT seems like a strong patent portfolio, and then Xilinx listed out the patents that it thought were so strong, and look right there you've got the '106 and the '181 patents, the two patents in this case.

Other things that the Defendant Xilinx said back in 2003, PACT has a large patent portfolio which we should probably research and keep an eye on.

PACT, they are well positioned from a patent point of view, they have a strong patent portfolio. Those are the things that the Defendant said before this lawsuit was filed.

And so after saying all those great things about PACT's patent, did Defendants come to PACT and ask for PACT's permission to use PACT's patents? Did they do the right thing? The answer to that is no. In fact, the Defendants came up with plan after plan to avoid doing the right thing.

The Defendants first plan was to pretend

to be interested in a business deal with PACT, that way Xilinx could extract more and more information out of PACT without actually ever giving any business to PACT. And Xilinx's hope was that PACT would eventually go bankrupt and when that happened, Xilinx could swoop in, buy up PACT's patents on the cheap and not have to pay a fair price for them. Unfortunately for Xilinx that first plan didn't work out. PACT didn't go bankrupt. PACT survived long enough to file this lawsuit. So after that occurred, Xilinx came up with a second plan.

After its bankruptcy plan failed and after this lawsuit was filed, Xilinx ran to the Patent Office and argued to the Patent Office that you know what, PACT doesn't deserve these '181 and '106 patents. You should take the patents away from PACT.

That's a process called putting the patents into re-examination. And in this re-examination process, Xilinx argued to the Patent Office that PACT hadn't come up with anything new. In fact, Xilinx argued that it was Xilinx that came up with PACT's inventions before PACT.

But just like that bankruptcy thing, Xilinx's re-examination plan also failed, because just last year, the Patent Office rejected Xilinx's re-examination petitions, and it re-affirmed that PACT

has good, valid patents. And that brings us to today, because this trial is going to be Xilinx's third attempt not to do the right thing.

First, it wanted PACT to go bankrupt, but that didn't happen.

Second, it wanted the Patent Office to take away PACT's patents, but that didn't happen.

And, third, it's going to ask you, the Ladies and Gentlemen of the Jury, to find that PACT's patents are not infringed or that they're invalid, but PACT thinks that shouldn't happen either, because for this particular incidence, the third time is not the charm for Xilinx.

Because Xilinx won't do it on its own, PACT is going to ask you the Ladies and Gentlemen of the Jury to finally hold it accountable for its trespassing on PACT's property.

So let me tell you a few things about PACT. PACT is a company from Germany. And it was founded in 1996 by Mr. Martin Vorbach. Now, Mr. Vorbach was something of a computer whiz kid when he was a little kid. He started running the computers in his dad's construction business when he was just nine years old. He built his first computer from scratch when he was 15, and he got his first computer patent when he was

23 years old.

As he sits here today, Mr. Vorbach holds 60 United States patents, although this case, as you've heard, is about just two of them, the '181 and the '106.

Now, while Mr. Vorbach was in college, he got interested in a field of computers called configurable computing, and so he founded PACT to develop products in that field of configurable computing. The other co-founder of PACT was a man named Robert Munch, and Mr. Munch is listed as the second inventor on all of PACT's patents. And that's how PACT came to own Mr. Vorbach and Mr. Munch's patents in this case.

So let me tell you now a little bit about the technology in this case, and the easiest way I could come up with a way to tell you about the technology and explain it is to make an analogy to kids' toys.

Let's say you've got a little boy, and if your little boy is anything like my little boy, Max, your little boy loves knights and castles. And so for Christmas one year, you could go out and buy your little boy a toy castle. And you know what, that toy castle would be really good at doing one thing. It would be really good at being a toy castle.

Computer chips are much the same way.

You can buy a computer chip that's really good at processing video, or you can buy a computer chip that's really good at running complex calculations. But there's a problem. What happens if, as it inevitably will happened with a little boy, your little boy wakes up one day and he decides he's not into knights and castles anymore. Now he wants to be a fireman.

Well, now you're going to have to go out and buy your little boy a firetruck, and it's the same problem with computer chips. You have a computer chip that processes video, and now all of a sudden you want to do complex calculations, you're out of luck and you wasted all that money on the first chip when what you really want is a second chip.

Now, I will say there's one way you could have fixed your boy's problem. You could have just bought your boy some LEGOs. Then while your boy was interested in knights and castles, he could have built himself a castle. When he got interested in fire stations, he could have built himself a firetruck, so on and so forth. That's the beauty of LEGOs.

Configurable computer chips are much the same way. You can take a configurable computer chip and rearrange its parts and build a chip that's good at processing video. And then if your needs change, you

can rearrange the parts again and build a chip that does complex calculations.

Now, there are a variety of different configurable computer chips out there, but this case is going to focus on one kind of chip in particular. That chip -- oh, I should also say that the parts of the computer chip that you can arrange and rearrange are called cells.

Now, the one particular kind of chip that this case is going to focus on is called a field-programmable gate array. And because that word is a mouthful, most people usually just abbreviate it FPGA.

Now, the Defendant Xilinx is the world's largest maker of FPGA chips. The other Defendant, Avnet, is the distributor of Xilinx's FPGA chips. It's kind of the middleman between Xilinx and Xilinx's customers. And for that reason, you all are going to hear a lot less about Avnet during the course of this trial. Most of the focus and attention is going to be on Xilinx.

So let's talk about Mr. Vorbach's invention particularly. Now, PACT did not invent configurable computer chips, and PACT did not invent FPGAs. In fact, Xilinx was the one who developed the first commercial FPGA back in the 1980s, and since then,

it has come up with a variety of really innovative FPGA features, just not the features that are in this case.

What happened was back in 1995, Mr. Vorbach realized that old-style FPGA chips had a problem, and his inventions relate to critical ways to solve that problem. That's why his patents are known as improvement patents. They took a problem -- they took an existing product, like an FPGA, and made significant improvements on it.

So what was the problem that Mr. Vorbach saw?

Well, like I said, in a configurable computer chip, you can rearrange the parts of the chip to build any kind of computer structure that you want, but sometimes that's actually not a good thing.

Sometimes there are structures on a computer chip you actually want to leave alone. And one of those structures is known as the bus interface. So what's a bus interface?

Well, let me tell you what a bus is, and then I can tell you what a bus interface is.

Computer chips need to be able to communicate. They need to be able to communicate inside the chip, and they need to be able to communicate with the outside world. And computer chips do this

communication over what is known as a bus. A bus is like a communication pathway.

Now, this makes for pretty easy analogy actually, because you can think of a bus like a city bus system. A city bus system transports folks around a town, just like the bus on a computer chip transports data around the chip and off the chip.

Now, PACT's inventions relate to a critical piece of circuitry called the bus interface. This is the circuitry inside the computer chip that controls the various buses and makes sure they're all speaking the same language.

Now, this is a really critical part of a computer chip. Without it, your computer chip couldn't talk with the outside world, with other devices.

Now, what Mr. Vorbach realized is that you can rearrange and build up any kind of computer structure you want on your computer chip, and so every time you fired up your FPGA and configured it, you could put it on that bus interface. But that's not actually very efficient.

Think about it this way: Let's go back to the LEGO example. Let's say whatever your boy likes to build, if it's a fire station, a house, whatever it is, he always needs a roof. Now, your boy, when he

builds that roof, he can build it out of individual LEGO blocks. He can put all the LEGO blocks together and do that, but that would take him a long time.

It would be more efficient and he would build that roof a lot quicker, if his LEGO set came with some prebuilt roof pieces. Then he could arrange those roof pieces, put them on to his creation, configure them around a little bit, and he would have a roof. That would have saved him a lot of time.

PACT's inventions are very similar to that. PACT's innovation was to introduce into these configurable computer chips something known as a permanent bus interface, and the idea was that when somebody used one of these chips, they would not have to build that bus interface up out of cells each time. They would not have to build it out of the LEGOs.

Instead, it would be a permanent interface that was there. Although it's important not to get confused on this point, what makes PACT's interface permanent is the fact that you don't have to build it up out of LEGOs each time. You don't have to rebuild it out of cells.

That doesn't mean you never touch it. It doesn't mean you never program it. That's all that it means; it's not built out of LEGOs.

Now, PACT's permanent bus interface was a huge improvement over the configurable chips that came before PACT for four big reasons.

Reason Number 1, by having a permanent bus interface on the computer chip, you save a lot of space on your LEGO board. And by doing that, you can use the LEGOs to build up the structures that you're really interested in.

Number 2, you save a lot of building time. By having that bus interface implemented permanently, your computer programmers don't have to build up that interface each time they want to configure their LEGOs.

Number three, a permanent bus interface is a lot faster than a bus interface that's not permanent.

And, number four, permanent bus interface uses less power, which is always a good thing in the computer chip world.

So what did PACT do with those inventions?

Well, PACT decided to design a chip, and so it created a chip design, which is kind of like the blueprints for a computer chip. And using those blueprints for the computer chip, PACT went out and

marketed those blueprints and those designs to folks in the industry.

So how does this relate to the Defendants? How do all these inventions relate to the Defendants?

Well, the evidence is going to show that starting in 2002, Xilinx began infringing upon PACT's permanent bus interface invention by introducing a feature into its products called RocketIO, and Xilinx was really proud of RocketIO. It touted RocketIO in all its marketing materials.

It said its rocket science and, in fact, the main RocketIO was supposed to tell folks just how fast your FPGA chip would be if it had a permanent interface like PACT's interface, like a rocket in PACT's technology that makes that rocket go.

Now, over the years, Xilinx introduced some additional infringing features that infringed PACT's patents even more. Those are called embedded EMAC and integrated PCIe endpoint. We'll explain all of those to you in more detail as the case goes on.

So like I said, PACT took its inventions and created a chip design, kind of like a blueprint for chips. And into those blueprints, PACT put the inventions of these patents. But PACT also put a ton of

additional PACT technology into those blueprints, because PACT was designing an entire chip. It was not just designing a -- a bus interface. It was an entire chip.

So what did PACT do with these blueprints with these chip designs?

Well, PACT went out into the market and marketed its chip design to folks in the industry who built chips or used chips. And some of the folks PACT approached liked PACT's chip design; some of them didn't. An example of someone who liked PACT's chip design was a firm called EADS Astrium. They are folks in Europe who build satellites and rockets for the European equivalent of NASA. And Astrium licensed PACT's chip design so that it could send designed chips into space on satellites.

At the same time, there were also folks who didn't like PACT's chip design, and you know what, they were pretty candid about saying it, although that brings us to a critical issue in this case.

This case is a case of patent infringement. It is not a case of design infringement. So your job in this case is not going to be to compare PACT's chip design to Xilinx's chip design. In fact, that wouldn't make any sense anyway, because there's a

lot more in PACT's chip design than just these patented inventions.

Your job in this case is going to be to compare Xilinx's products to PACT's patents. And so as a result, whether or not PACT had a good business or whether or not PACT had a good chip design is absolutely irrelevant to the issue of whether or not it's got a good patent.

And you know what, you don't have to take my word for that. Xilinx itself says the same thing.

This is an e-mail from Ivo Bolsens, one of Xilinx's executives, and he's here talking about PACT.

And what does he say? You know what, I wouldn't bet my dollars on PACT. I wouldn't invest in them. I'm not so sure about their business, about their chip design, but I would be interested in their patents. He's saying it right there.

There's a difference between a business and a design and patents, and Xilinx recognized it. So having recognized that, did Xilinx do the right thing? Did Xilinx come to PACT and say: You know what, we like your patents. We're kind of iffy on your chip design, so can we have permission to use your patents in our products?

No. That's not what Xilinx did. Xilinx came up with a different plan. Xilinx's plan was to lead PACT on and extract as much information as it could, but never actually do a business deal with PACT. And Xilinx hoped by doing that, it could drive PACT bankrupt. And then when PACT went out of business, Xilinx could swoop in and buy up PACT's patents on the cheap.

And you know what, it's not just me saying that either. That plan is candidly laid out in Xilinx's own e-mails. These are the sort of things that Xilinx said in its own e-mails. PACT, on the verge of going out of business, we may want to buy their patents or have someone else buy them.

PACT, when the company comes available for sale, I recommend taking a look at their patent portfolio. We might want to put in a low offer to get access to the patents, if they turn out to be valuable. In fact, Xilinx was gleefully waiting for the day that PACT went bankrupt.

Here's another e-mail from someone within Xilinx talking about PACT, saying: You know what, PACT's financials look really weak. They have 15 folks, and they both -- they just fired both their CEOs. And what does this person say? He says sarcastically:

Nice, stable company. And just to emphasize the sarcasm, he puts down a little smiley face right there.

I tell you what, Ladies and Gentlemen of the Jury, it was not all smiles for Xilinx, because PACT didn't go bankrupt. PACT survived long enough to force Xilinx to pay fair compensation for PACT's patents. And what should that fair compensation be?

Well, that's one of the issues you're going to have to decide in this case. And to go back to our oil analogy, say the oil company asks you for permission to come on to your land, like a good oil company should. If it does that, it has to pay you what is known as a royalty.

Patent law has the same concept. If someone infringes on your patent, they have to pay you what is known as a reasonable royalty. And to assist you in figuring out what that royalty should be in this case, we'll present to you the testimony of Mr. Jim Nawrocki. He is an accountant and an expert in patent damages.

Mr. Nawrocki, can you please stand up.

Mr. Nawrocki undertook an extensive investigation of the Defendants' sales in this case. And he found that Xilinx has sold 7 million chips that infringe upon PACT's patents. He then figured out how

much of the selling price of each of those chips ought to be attributed to PACT's technology. And he concludes that PACT is owed a royalty of $4.50 a chip for each of those chips, for total damages of $30.8 million.

Now, other than damages, there are going to be two other hotly contested issues in this case.

The first hotly contested issue in this case is going to be infringement. It's the question of whether or not Xilinx does what is in PACT's patents. And as you might remember from jury instructions or jury selection a couple weeks ago, it is PACT's burden to prove infringement to you. And it has to do that by what is known as a preponderance of the evidence.

So if you think of the scales of justice, the evidence has to tip slightly in favor of PACT on the issue of infringement. And to help you on this particular issue, we are going to present to you the testimony of Dr. Nick Tredennick.

Dr. Tredennick, please stand up.

Dr. Tredennick is one of the world's leading experts on FPGAs. He has a Ph.D. in electrical engineering, and he is world-renowned as a FPGA expert. In fact, he has been called a true industry pioneer in the configurable chip industry.

And do you know who called him that?

Xilinx called him that. Xilinx issued a press release in 2002 and called our expert a true industry pioneer. What Dr. Tredennick is going to do is tell you about the investigation of Xilinx's products that he undertook. He looked at those products, and he compared those products to the individual words in PACT's patent claims. And he's going to show you how Xilinx infringes.

Now, on the subject of infringement, I want to mention two more things.

Number one, infringement is not the same thing as copying. To prove infringement, PACT does not have to show you that Xilinx literally took out PACT's patent and copied PACT's inventions out of it. In fact, you can be guilty of patent infringement even if you never knew about the patent you were infringing.

I mean, think about it. If you had a piece of property and someone came on to your property, they would be guilty of trespassing even if they never saw your no-trespassing sign. That being said, that's not the case here.

What the evidence will show here is that Xilinx came on to PACT's property. Xilinx saw PACT's no-trespassing sign, but instead of immediately leaving, Xilinx stayed on that property and kept infringing.

That is not accidental patent infringement. That is willful patent infringement.

The second thing I want to say to you on the issue of infringement is that there is one and only one place you should look in the patents to determine whether there has been infringement. That is the claims of the patents, these numbered photographs at the very end of the patent.

Remember what the Court just told you ten minutes ago in its preliminary instructions. The Court said that the claims define the boundaries of its patent protection. And then the Court told you the first issue you're going to be asked to decide in this case is whether Xilinx has infringed the claims of the '181 patent or the '106 patent.

Infringement is assessed on a claim-by-claim basis. So that means the one and only one place that you all should look when considering the issue of infringement is in the claims of the patents and any definitions of those claims that the Court may provide to you.

So during the course of this case, someone may get up to you and say: You know what, PACT's invention is this, or someone might get up to you and tell you PACT's invention is that. But all of that

will not matter on the issue of infringement, unless those folks are using the language of the claims, unless they are talking about this claims.

Likewise, someone during the course of this case may get up and talk to you and say: You know what, the abstract of the patent says this. Or they may get up to you and say: You know what, the drawings of the patents say that. But, again, you cannot infringe the abstract of a patent. You cannot infringe the drawings of a patent.

The only thing you can infringe are the claims of the patent. Let me give you an example of this. During jury selection two weeks ago, Mr. Baxter, representing the Defendants, argued to you that what PACT's invention was, was to quote the patent, an interface that took no computer programmer intervention. That's what he said.

And then he said: You know what, Xilinx's products have computer programmer intervention; therefore, we don't infringe.

But you know what, that phrase, no computer programmer intervention, that doesn't appear anywhere in the claims of the patents or in the definitions of the patents. In fact, that phrase doesn't actually appear in the patents at all.

Mr. Baxter was paraphrasing the patent. He wasn't quoting it. In any event, unless the phrase, no computer programmer intervention, appears in the claims of the patent or in the definitions of those claims, and it doesn't, any argument that Xilinx wants to make to you about whether its products have intervention or whether they don't have intervention has no relevance to infringement.

Let me give you another example. During voir dire or during jury selection -- if my clicker -- oh, I was clicking the wrong thing and I was hitting you with the laser. Sorry about that.

During jury selection a couple weeks ago, Mr. Baxter also told you that you know what, PACT's inventions has this bus system on it, and you can't program it. You don't touch that bus system at all. And he said: You know what, we don't infringe because we've got a bus system that you can program.

But Mr. Baxter, when he made that argument to you, didn't actually show you the claims of any of PACT's patents, and there's a good reason for that. That's because the claims of PACT's patents say the exact opposite thing.

This is Claim 30 of PACT's '181 patent and Claim 30 right here (indicates) is talking about

this interface unit that I discussed with you earlier.

And what does it say about the interface unit?

It says that the interface unit can be configured. That means that interface unit can be programmed; it can be touched. So it's absolutely not true that PACT's patents are some patent that has a bus system that you can't program and you can't touch, because Claim 30 of the '181 patent says the exact opposite.

That's why you should not listen to what people tell you what are in the patents. You should insist on seeing what's actually in the claims of the patents.

Now, the second of the two issues I want to talk to you about, which will probably be a big issue in the case, is the issue of invalidity. What Xilinx is going to argue to you is, you know what, even if we do infringe PACT's patents, that's okay because PACT's patents are invalid and never should have been granted in the first place.

It's kind of like I didn't steal your lawn mower, but even if I did steal your lawn mower it was broken when I took it.

And what Xilinx is going to come and

argue to you is and say: The Patent Office messed up. It should have never issued these patents to PACT, because other folks had developed these inventions first in what's known as the prior art.

And on this particular issue, it's important to remember that there's something called the presumption of validity. And because of that presumption of validity, in order for Xilinx to invalidate these patents, Xilinx has to come and present to you clear and convincing evidence that the Patent Office made big errors and messed up and should have never issued these patents.

Now, I do not know what precisely will be Xilinx's invalidity arguments. I suspect what Xilinx is going to argue is that Xilinx came up with PACT's inventions before PACT did, which is somewhat interesting, because they're also going to be arguing to you that Xilinx doesn't do what PACT does, even though Xilinx came up with PACT's inventions before PACT did.

In any event, Xilinx is going to argue to you, I think, that it had two products called the XC 4000 and XC 6200, and both of these products had PACT's inventions in them before PACT filed for its patents.

It's going to be really hard for Xilinx

to make that argument to you. Really hard for two reasons. The first reason are all those e-mails that I showed you where Xilinx kept saying that PACT has great patents; we should buy them up as soon as PACT goes bankrupt.

But if it's really true that Xilinx had invented this stuff before PACT did, then why didn't somebody in those e-mails chime in and say: You know what, PACT's patents are terrible. We shouldn't buy these patents. We don't want these patents. We invented this stuff with the 4000 and the 6200.

But you're not going to see any e-mails in this case that say anything like that.

The second big problem for Defendants on invalidity is going to be an even bigger problem for them, because like I mentioned to you, after PACT filed this lawsuit, Defendants ran to the Patent Office and tried to get the Patent Office to take away PACT's patents. It's a process called putting the patents into re-examination.

During that process, Xilinx argued to the Patent Office that PACT hadn't come up with anything new and PACT didn't deserve its patents. And, in fact, that XC 4000 and XC 6200 were before the Patent Office during the re-examination. The Patent Office looked at those

things and considered them and still concluded that PACT's patents were good, valid patents and that PACT was first with these inventions and not Xilinx.

So now what the Defendants are going to come up to you and do is try to get you to second-guess the Patent Office. And like I said, I'm not sure what their invalidity arguments are going to be, but I can tell you that any piece of prior art that they're going to show you during the course of this trial, the Patent Office looked at and concluded last year does not invalidate the patents.

So Xilinx is going to ask you to second-guess the Patent Office right there, after the Patent Office has already blessed these two patents twice.

THE COURT: You've got about four minutes, Mr. Grinstein.

MR. GRINSTEIN: Xilinx took its shot at trying to short-circuit this case at the Patent Office, and Xilinx lost.

So, Ladies and Gentlemen of the Jury, thank you for your time, and thank you for your attention today. And certainly, I know on behalf of both parties, thank you for your jury service.

I know what I just said was a lot to take

in in 40 minutes, but at the end of the day, I think you'll find that this case is actually pretty simple.

On the one hand, you've got PACT who came up with revolutionary technology; it was a significant improvement over configurable chips and whose patents have been approved by the Patent Office not once but twice.

On the other hand, you've got Xilinx who has consistently refused to do the right thing by PACT.

First, Xilinx wanted PACT to go bankrupt, but that didn't happen. Second, Xilinx wanted the Patent Office to take away PACT's patents, but that didn't happen. And now for a third shot, Xilinx is going to want to argue to you that it does not willfully infringe PACT's valid patents.

But as PACT sees it, the third time is not the charm for Xilinx, and just like in baseball, it ought to be three strikes and you're out.

Thank you.

THE COURT: Thank you, Mr. Grinstein.

MR. BAXTER: Ready, Your Honor?

THE COURT: For the Defense, yes.

MR. BAXTER: Thank you, Your Honor. May it please the Court.

Ladies and Gentlemen of the Jury, we left

you two weeks ago with two burning questions. Number one, was my friend, Mr. Carroll, here going to make the jury. I told you he would.

Did you make the jury?

MR. CARROLL: The case settled.

MR. BAXTER: Didn't make it.

Number two, does Xilinx infringe the PACT patents? And I told you then, and the evidence in this case, is going to prove to you that we absolutely do not.

Now, I think what we ought to do is go back and look at where the computer industry was, not when PACT came along, but long before that, even before Xilinx came along.

And what we had was a situation, as we talked in voir dire, where chip companies were making chips called ASIC chips, and they were very specific chips, and they did one thing and they tried to do it very well. But they were hard-wired, and they were fixed.

And there were a couple of problems, it turns out, with the ASICs. Number one, they were very expensive.

Number two, if you made a mistake, you got to eat a whole boatload of chips, because they were

not valuable to you.

And, number three, if you found out there was a better way to do something, once again, you were in trouble, because what you had was a boatload of chips that now you wanted to change and you had to start all over. You had to get your engineer to design the change. You had to get them to the foundry. They had to mask them. They had to produce them, and they had to get them to you. And then you needed to convince customers they ought to buy a new chip.

Well, there was another system that was in computers that was important, and that was called the bus system. And you heard a little bit about the bus system. And this case is going to turn out to be about the bus system. We're going to talk about that in a minute, but here's how the old bus systems worked.

You had a chip with a permanent bus control, and it set up something called the bus system protocol. And the bus system protocol was a way in which the chips had to agree that in this case, they both spoke English. And you couldn't have a chip in which one of them spoke English and the other spoke French, and it didn't understand English, because those chips were not going to communicate.

But those were hard-wired. They were

fixed. And they were permanent, which meant, once again, that if a bus system came along and you thought it was better than the one you had, you couldn't change it. You had to go buy new chips.

And that was sort of the state of the art until 1982. And for a moment when I was listening to Counsel, I was afraid that he was going to claim that Mr. Vorbach and PACT invented FPGAs. Of course, that didn't happen. Mr. Vorbach wasn't around in '82, but there was a gentlemen by the name of Ross Freeman.

And he was a computer chip engineer, and he realized the problem that people were having with ASICs and with bus control systems. And he said wouldn't it be good, if we had a chip that you could change that wasn't fixed, that you could program?

And so he sat down and he designed a chip, the first commercial chip of something called a field-programmable gate array. Now, the reason it's called field programmable is that when you design the chips, you make it for sale to a very sophisticated customer that's going to have its computer chip engineers program the chip.

When they get it and it comes out of the box, it won't work. It takes the company and their computer chip engineers to tell it what it wants to do,

and it will do amazing things. It will do a large number of things, but out of the box, it won't do anything.

Now, they got smaller. They got all the pins on the side. It's eventually called gate array, because if you look on the inside of those, you would find all those cells, and they're all wired together. And they have something called CLBs inside, and that is the gate array that's inside. And we're going to hear a lot about CLBs in this case and they're logic blocks. But they're the ones that are configurable; hence, they're called CLBs. And those CLBs, when they arrive at the customer, the customer can then tell the CLBs: Here's what we want you to do. And in this case, we want -- let's see the next slide just a minute.

There's -- there's the customer, and he tells the program chips with the configuration file how we want you to work. And in the field, that chip will do amazing things.

Let's see the next slide.

Now, here's the great thing about the chip, is that the chip designer -- this is the customer now. Say it's Cisco, and you want that chip to go into a router in order to route e-mail messages or whatever it is.

The chip designer can start and he can start designing that chip, and he realizes that maybe that triangular wheel isn't going to work very well. So what he can do is he can change it, and he can make it a different type of wheel, one that will work. He can then change it to something entirely different.

Let's suppose Cisco wants a different kind of router. Instead of having a car router, it wants a truck router. You can wipe it out and you can start it over, and you can make it the kind of router you want. And that is the beauty of the chip.

And one of the things that Mr. Freeman said is that we're going to have building blocks, and we're going to use building blocks inside of those chips in order to build the sort of thing we want the chip to do. And when we send them out, it can go to a television and be a television FPGA, or it can go to a satellite or it can go into an airplane or it can be used in the computer in your automobile for the fuel injection system, whatever it is. That's how our chip works.

The FPGA, the field-programmable gate array, it was a revolution in the computer industry. In fact, if you look at one of the computer publications that writes about very sophisticated computers, they

have the 25 microchips that shocked the world. And one of those 25, of course, is the Xilinx field-programmable gate array.

For his work -- Mr. Freeman's now dead -- but for his work, he was placed in the Inventors Hall of Fame right after Alexander Graham Bell and before Samuel F.B. Morse. Mr. Freeman is one of those distinguished inventors that helped change the computer industry and thus changed our world, and it's because he had the idea of having building blocks inside of a chip that you could change, that you could make do whatever it is you want it to do throughout the chip.

Now, here's the question for us, is it always required to program the CLBs in the chips?

And the answer is, no matter which chip you started with, with the Freeman patent back in 1984 going through -- we went through 2010, but if you went through today, every one of our chips, when it gets to the customer, must be programmed so the chip will do what that business needs it to do.

And because our chips have been so reliable and because they are the standard in the industry, they're used for our aircraft, our fighter aircraft. They're used in most medical devices that take a computer. Your television that you watched this

morning before you came to court has got one in it, and the car that you've got has one in it.

Xilinx has been an innovator in the field. They own 2500 patents. They are the leading FPGA-maker in the world today, and they have the cutting-edge technology.

Now, let's talk just a moment about PACT and who they are and where they came from and what they did.

PACT was started by Mr. Vorbach and Mr. Munch, and they're the co-inventors of the two patents. Mr. Vorbach you've seen; he's the Plaintiff or represents the Plaintiff in this case. You haven't seen Mr. Munch yet, and there will be an interesting story associated with Mr. Munch.

And that is, Mr. Munch was in Germany and he was contacted by PACT's lawyers, had a brief conversation, and you never heard from him again. When we found out about Mr. Munch, we eventually contacted him, and we talked to him about his invention. He's going to come, when it's our turn to put on our evidence, and explain to you exactly what they invented.

Mr. Munch and Mr. Vorbach, of course, knew about Freeman. They even cited Freeman in their patent applications, but here I think we might

divulge -- diverge and talk about what these chips -- our chips and what they tried to invent really was about. And it's something you didn't hear from Counsel. And that is, when they were starting to make designs for their chip, they said: We understand about FPGAs. That's a really great idea, but we're going to make a better one.

At that time, it didn't have anything to do about any bus control system. It was how can we make a better FPGA. And in my limited understanding, here's what they said: We're going to add complexity to the chip. We, in effect, are going to put a little mini-microprocessor in the chip, and we're going to have it do things differently than the way Xilinx FPGA chips work. Differently.

And here's the best analogy that I can understand and -- and maybe get across to you, and my colleagues over here will cringe every time I do it because they say, Baxter, you have a simple understanding. But that's all I've got. But here it is:

If you have a truck that's going to go from Dallas to Marshall using the Xilinx chips, you can program the truck to go from Dallas to Marshall and you can say, start on Interstate 30, get on 80, go to 20,

get off at 43, turn left on Washington, and go to the Square.

But once you tell it that, the truck's going to do exactly that. It's not going to vary from its route. That's how you programmed it. That's what it's going to do.

But the PACT people said: We've got a different idea. We're going to tell that truck to go from Dallas to Marshall, but if there is some condition that changes, we're going to stop the truck, halt the truck, reprogram it a way to go, and tell it to go differently so it may cut across in Canton and get on 80 and go to Marshall from there.

Now, that was what their idea really was about. And when they came and talked to Xilinx, that's really what they talked to us about.

Here's the problem they had right upfront, and you're going to hear Mr. Munch explain this. Once you add that complexity to your chips -- and by the way, it turns out that the chips didn't work. But once you add that complexity to your chip, now you need to get that information off the chip.

You now have a bus control system and a bus control system that you need to be simple. You don't need it to be complex. You don't need to program

that bus control system. You want it permanent; you want it fixed; and you don't want to change it. You don't want to program it.

And you will hear Mr. Munch say they had long conversations, he and Mr. Vorbach, about that.

Now, Mr. Munch was the real brains behind the software, and he was the one saying it's very complex; it's very hard to write the code; it's very hard to get the chip to do what we want it to do; therefore, at least in the bus control area, let's dummy it down and make it simple and make it fixed and make it permanent, and we don't program that.

And that's what they agreed to do, and that's what they got a patent on. And you're going to hear Mr. Munch explain all that to you about how that was his idea. Mr. Vorbach agreed, and that's how they tried to design their chips.

Now, you heard a little bit about the patent, and you've got the patent in your notebooks there. If you get a chance, open that up just a moment. See if you can find the '181 patent.

And I heard something very amazing today from Counsel, and that is, it's the first time I've ever heard anyone say: Just look at the back of the patent and don't read anything else.

But I want you to start at the front of the patent where Mr. Munch and Mr. Vorbach, who swore under oath to the Patent Office about their '181 bus patent, what that patent consisted of, and it's right there in the abstract.

And it says: A uniform bus system is provided which operates without any special considerations by a programmer. The bus system control is predefined; it's fixed; it's permanent; and does not require any influence by the programmer. And that was their idea. And they were upfront to the Patent Office that said we're going to make it fixed; we're going to make it permanent; and we're not going to have the programmer influence it any way whatsoever.

If you go further in the patent, you'll find a section called the summary of the invention that Mr. Munch and Mr. Vorbach swore to. And here's what it said: The present invention provides a uniform bus system, which operates without any special consideration by the programmer. The present invention includes a permanent implementation of the bus control system. And you're going to hear a lot about the word permanent.

And Judge Payne and the Court has issued a claim construction that's also in your notebook. And I'm going to talk about that in just a second. But

let's see if Judge Payne didn't tell you and tell us that the bus control system has to be permanent, which is exactly what Mr. Munch and Mr. Vorbach in the Munch/Vorbach patents said.

Go back just one second.

And at the bottom of that summary, it says: The bus control system is predefined and does not require any influence by the programmer. That's the '181.

The '106, here's the abstract. If you've got your '106 patent, it's right at the front. It's what they tell the public their patent is all about. A general bus system is provided which combines a number of internal lines and leads them to a bundle through the terminals. The bus system control is predefined and does not require any influence by the programmer.

That's the '106.

Let's see the next one.

They told the Patent Office and they told us and they told you in this summary, and you can find it in the patent. It's -- it's after the drawings and it's right at the first of the words: A uniform bus system operates without any special consideration by a programmer. A permanent implementation of the bus system control is provided. The bus system control is

predefined and does not require any influence by the programmer.

Now, Judge Payne is going to tell you what some of the words mean, and I'm here to tell you that one of the things he's going to tell you is, it's got to be permanent, because that's what the inventors told the Patent Office their bus control system was going to be. It was going to be permanent.

Now, here is a sample claim from the '181, and we're going to talk about an interface unit. And the interface unit is coupled throughout plurality of individual lines, and it forms the bus system.

Go to the next slide for me.

Now, this is right from Judge Payne's claim construction, and he defines a couple things for you. There's some more words in there, but he tells you that the bus system is used to communicate information according to a bus protocol. And a bus protocol, we'll remember, is I speak English; you speak English; no, you want to speak French? Okay, I'll need a different protocol in order to speak French.

But more importantly, remember that claim had an interface unit in it, and he tells you what that interface unit has to be, and it is a unit providing permanent implementation of a bus control -- bus system

control for communicating across a shared boundary; that is, up against another chip or an external device.

Now, it's permanent control of the whole system, not just one little bitty part of it, not one little tiny block in a scheme of blocks that is like this (indicates). It's the whole thing. That's what they got their patent on. That was the solution to their problem, that their chip was too complex. And that's how they solved it. And that's what the patent is.

And Judge Payne has told you that it's permanent, and I think we'll hear a lot about whether or not the Xilinx chips and the bus control system -- or the bus system control -- I always say it backwards -- is permanent or not.

Now, what else happened to PACT?

Well, PACT takes its patents and its ideas and its schematics and it goes out into the marketplace. They contact us. We didn't contact them. They contacted over 60 companies, and no one -- no one would invest in the company, would buy their patents, or would take a license from them on their new chip idea. And the reason is it didn't work. It was too complex, and they couldn't make it work.

They had all kinds of problems. They had

design problems. They had manufacturing problems. They had administrative problems. They simply, unfortunately, for them failed in the marketplace.

Now, they had a business plan in 2001, and here's what they told people that wanted to invest. It's what I told you a while ago. It was a unique combination of revolutionary technologies and a new way of computing. Now, think about this just for a moment. If Xilinx was using their technology, why in the world would they tell us they had a new way and a new way of computing and a new way to make FPGAs.

Not just once but over five or six years, they kept coming back and we kept telling them no. We kept telling them we're not interested. We don't think your technology is going to work. We are not interested in changing the way we do things, because what they kept telling us is, it was new; it was new in two respects.

Number one, that microprocessor that sat on top of their gate array was going to be able to stop the operation, halt it, reprogram the chip, and do it a different way. And we said that's too complicated. We don't want to do that. Our customers don't want to do that. That basically is called coarse grain array, and we didn't want to do it.

Now, I'm not just kidding about how they

pursued us. Really starting in 2002, there were meetings with Mr. Bolsens. You saw some of his e-mails, and you're going to get a chance to see Mr. Bolsens and judge his credibility for yourself.

THE COURT: Mr. Baxter, if you'd speak a little closer to the mic, I think we'll be able to pick you up better. Thank you.

MR. BAXTER: Is that better?

THE COURT: That's better.

MR. BAXTER: You're going to see Mr. Bolsens, and I think what you're going to find, after you see Mr. Bolsens, after you see Ivo, is that he's an honest man. He wouldn't steal anybody's technology. He's a scientist. He is simply interested in doing the right thing, and that's what he did.

And one of the things he did is that he, in all fairness, looked at PACT's technology to see if they were interested, to see if they had something better, because if it were better, they wanted to take a look at it and maybe do it. But it wasn't.

And for all of these meetings, all the e-mails, all the in-person meetings, when you look at documents, I'll promise you this: They were about whether or not you were going to put that microprocessor on top of those chips, and you were going to have some

sort of halt/reprogram/start again chip.

The bus system wasn't even discussed. That's how proud they were of the bus system. That's not what they were trying to sell Xilinx. They were trying to sell them new technology. Being fixed and permanent was old technology, and they knew, had to know that Xilinx did it differently.

Now, think about this: If you're going to go to a company and tell them I'm going to sell you something new, you've got to know how they do something. And they did, in fact, know how we ran our chips.

To top it all off, there's no secret how we do it. All of our manuals that explain how things work are on the Internet. You simply go to Xilinx and go to the right website and our manuals pop up, and they had instructions.

One of the board members instructed Mr. Vorbach personally to take a look at all of the Xilinx materials, and they kept up with us, and they knew what we were doing.

Now, they had all these meetings, and we kept saying, no, we're not interested in your chips. And they kept coming back and kept coming back and kept coming back until finally we very directly said we simply are not interested in investing money, buying

your patents, buying your chips, or licensing your technology, because we don't think it's a good fit for Xilinx.

Now, one of the things that they didn't tell us is that they had had their chips evaluated by an expert independent lab, and they found out -- that is, PACT found out -- they forgot to tell us -- next slide -- that their chips just didn't work very well. And in comparison to everybody else's chips, they failed.

It was so bad that Mr. Vorbach wrote a letter to the board that said this: The chip's specifications did not fit any customer requirements, not even Siemens. And we're going to hear a lot about how they tried to get Siemens interested.

Go back.

It did not support sequential processing, external DSPs were required, which did not even interface and integrate well. The interface structure was proprietary, the protocols complicated and badly defined. No standard bus structure was implemented. With the given specification, the chip was absolutely useless for any product, not even for prototyping.

And even after he wrote this and even after they got reports from Siemens and BDTI that their

chips didn't work and didn't perform well, they still came back and tried to sell our (sic) chips and told us they were high performance and we needed them.

Wasn't true. If you look at those documents, if you get a chance to see those documents, see if there's anything about a bus control system, because that's not what they were talking about.

Mr. Weber that you saw out here had to write the investors that he had been disappointed and they had been a failure.

Mr. Diaz.

And, finally, Mr. Schwarz at Xilinx had to tell Mr. Weber in 2006 that their proposed solution is too risky, and there's just no synergy with Xilinx. And we once and for all said we simply are not going to do business with you, which we had told them two times before, and then they sued us.

Now, I told you we didn't infringe, and the testimony is going to be this: You heard about the RocketIO. Now, here's what's going to be interesting about the RocketIO. Xilinx got the technology for the RocketIO in 2000. They hadn't even heard of PACT. They determined they were going to put this technology in their chip, and the RocketIO, in order for it to work, has to be programmed by the customer.

You heard about the ethernet MAC cores and the PCI Express cores. They all have to be programmed by the customer in order to get them to work. And this is the bus system control. It's not permanent; it's flexible. There are over dozens upon dozens of bus system controls and bus systems. Companies use different ones depending on what their needs are and what they like.

Our chip will do them all. Their chip was fixed and permanent and would not do that. Our chips have to be programmed. That's not the way their patent worked. It wasn't their idea. They had the opposite idea. They were going to be fixed and they were going to be permanent.

If you look at -- at our documents, this says they're highly configurable, and you've got to program all the RocketIO.

Let me see the next slide.

Here's just an example of how many CLBs it takes. It takes more than 370 to program the ether (sic) MAC; almost 200 to do the PCI Express; and 430 to do something called OBSAI. Those logic blocks have to be programmed by the customer. That's not true in the patent.

Now, I told you the RocketIO was in June

of 2000. We put it out in 2002. And in all the meetings, in all of the conversations we had with all of our stuff on the internet with our engineers talking to their engineers, not one time, not once did they ever say to us: Oh, gosh, your RocketIO has already got our patent in it. Let's talk about that.

Those words never fell from their lips. Now, don't you know that if they really thought their patent covered the RocketIO, they might have just mentioned it to us one day, sent us an e-mail, when their engineers are talking, saying, gosh, you've already got our technology.

That's untrue. They didn't do that, not one single time. And that pretty much tells the tale right there.

Now, you heard about what I'm going to now call the conspiracy theory. Oh, Xilinx had a plan. They conspired to get PACT's chips. The truth is that from 2001, Mr. Bolsens, Ivo, has probably talked to over 400 companies, startup companies that come to him with new ideas. A very few we've liked; most we have not. There was a list of competitors for Xilinx. PACT is on there. It was No. 245. It was not a significant competitor, because they didn't make any chips. They've never sold any chips. You heard them talk about how

there was this company that was interested in their chips in Europe, put satellites up.

Well, it will be interesting to see how many of their chips are actually in a satellite, because I think the answer is none of them are. They simply haven't been able to get them to work, and, therefore, no one's ever paid them any royalty for using their chips.

And, finally, I want us to see -- when you see they have a strong patent portfolio, Mr. Bolsens is going to testify about that. At the time someone wrote that, they hadn't even looked at the patents. They just knew they had numbers.

But here's the key to that. This is from Mr. Bolsens in 2005 talking about PACT: They are, however, well-positioned from a patent point of view. If you believe that coarse grain arrays will prevail in the future, they have a strong patent portfolio of 60 patents filed and 30 approved in this field.

Now, here's what you need to keep in mind, the critical words there are course grain array. And the course grain array is their initial concept of being able to have a FPGA that you can, in midstream, in doing whatever it is the manufacturer or the customer wants it to do, it stops, it halts, and it reprograms

itself and rewires itself. That's called course grain array.

And that really was their idea, and they have patents on that. But, Ladies and Gentlemen, it didn't have anything to do with a bus system. It didn't have anything to do with a bus system that was permanent and fixed. Coarse grain array is something entirely different.

And that's why Mr. Bolsens and the engineers at Xilinx were even looking at their patents, because there was a possibility that course grain array could work; and if so, they'd be interested in PACT, but if it didn't work and no one uses it in the way that PACT has its patents, no one, then those patents were not of interest to us.

We weren't planning on their bankruptcy. We weren't planning on their demise. We knew they were a small startup company that had horrible internal problems. You're going to see some documents about that, some from Mr. Vorbach himself, that they were not well-organized, and they were not a success.

At the end of the day, if you look at the patent as a whole, look at the claims, and look at what Judge Payne tells you that those claims mean, he told you that the bus system control has to be permanent,

just like they said so in the beginning of their patent. I didn't make that up. I didn't try to mislead you. But when you read the claims, you have to read them in the light of what Judge Payne has told you the words mean, and what he's told you is it's got to be permanent.

Ours, Ladies and Gentlemen, are not permanent. We don't just have one sort of bus control system on our chips. We can have dozens, because you can program it to do whatever you want it to do, and that is not true with PACT's patents. That's not true with their idea. That's not how they solve their problem. And it's why we don't infringe.

Now, one more word: Damages. Remember I told you in voir dire that I was going to put on a damage expert, Ms. Woodford. You're going to like her. She's very knowledgeable, and she's going to give you some information about damages. But because I put Ms. Woodford on and because she gives a damage number in no way -- no way means that we agree we ought to pay a penny.

THE COURT: You've got four minutes, Mr. Baxter.

MR. BAXTER: Thank you, Your Honor.

Because we do not -- we do not infringe

their patent. The only way that you ever have to pay any monies is if you infringe the patent. And so she's going to give you a way to analyze damages, but I believe that when Judge Payne gives a charge, as he will, and gives you a verdict form that he will tell you that unless you find infringement, you never get to damages.

And because I believe so strongly that you will find that we do not infringe their patents, you will not ever have to worry about damages, but I just wanted to make sure that you understood that I've got to, under the law, talk about this thing that Mr. Carroll last week or two weeks ago called the play-like negotiations. It's called the Georgia-Pacific Factors, and it's called a hypothetical negotiation, one that didn't take place.

And so we have to answer that, and we've got to give you a way of looking at those factors to arrive at a number that is -- would make some sense. But I do not agree that we infringe the patents. The evidence will show that we don't, and as a result of that, when we get to damages, you will know that we're doing it because we have to, but not because we ever agree that we infringe the patents.

Xilinx is a company that has been built

on integrity. We are the leader in the field. We are innovative. From the very get-go, when Mr. Freeman had his idea of how to make these chips that change the way people think about computer chips, from his patent forward, we have always done it the same way.

We've tried to get better at it, but we've always done it the same way. We've always had building blocks that build upon one upon another that you have to program in order to get them to work.

If they had a chip and you could get it and you wanted to put it in your television, you could take their chip and plug it in, and at least as far as the bus system control is concerned, once you powered it on, it was working and it was fixed and it was permanent.

If you took our chip and plugged it into the same television and turned on the power, it would set there like my child and homework, and do nothing. It won't work. The bus system control will not work until someone programs that chip to make it work.

You have to tell it what you want it to do. You have to tell it what language to speak. You have to tell it what its parameters are. You've got to tell it how fast to go. But it won't work out of the box, and theirs will, and that's the critical

difference.

So at the end of the day, after you hear all the testimony, I think you're going to find, number one, that we do not infringe the patent; and, number two, we were honest with PACT. We told them that we were not interested in their technology, not once, not twice, but three times. And they kept coming back with different ideas.

But when they came back to us, what they really were talking about were the -- was the programmable portion of the chips.

THE COURT: Thank you, Mr. Baxter.

MR. BAXTER: There wasn't any conversation about the bus, and you'll find that true.

Thank you, Your Honor. I appreciate it.

THE COURT: All right.

MR. BAXTER: Ladies and Gentlemen, we look forward to bringing this case to you.

THE COURT: Ladies and Gentlemen, we're going to take the morning recess now. We're a little bit off schedule, but I wanted to finish up the opening statements. We'll take a 15-minute recess, and then we'll go for about an hour and take the lunch recess at that time.

Let's rise.

LAW CLERK: All rise.
(Jury out.)
THE COURT: We'll be in recess for 15 minutes.
(Recess.)
(Jury in.)
COURTROOM DEPUTY: All rise for the jury.
THE COURT: Thank you. Please be seated.
Mr. Grinstein, you may call your first witness.
MR. GRINSTEIN: Thank you, Your Honor. And just for the record, I will invoke the Rule at this point.
THE COURT: All right. Do you have witnesses present in the courtroom, other than the one who is about to testify and other than the experts?
MR. GRINSTEIN: No, Your Honor.
THE COURT: Mr. Baxter, does the --
MR. BAXTER: No. We have experts here, Your Honor, and the client representative, Mr. Trimberger, who to my discredit I didn't introduce to the jury but he's here.
THE COURT: All right. And he'll be your representative --
MR. BAXTER: Yes, sir.

THE COURT: -- so there's no witnesses to be sequestered. If the Rule's been invoked, however, both sides will be responsible for making sure that they don't have nonexpert witnesses who come into the courtroom during any of the proceedings. If the Rule is violated, there will be problems regarding those witnesses testifying, so that each side better watch over that.

You may proceed.

MR. GRINSTEIN: Your Honor, for our first witness the Plaintiff, PACT, calls Martin Vorbach.

THE COURT: All right. Mr. Vorbach, you may come up to the stand and be sworn.

(Witness sworn.)

THE COURT: Thank you. Please have a seat. If you would pull that microphone a little bit to you as you sit down --

THE WITNESS: Okay.

THE COURT: -- that'll help. Thank you.

MARTIN VORBACH, PLAINTIFF'S WITNESS, SWORN

DIRECT EXAMINATION

BY MR. GRINSTEIN:

Q. Could you please state your name for the jury?

A. I am Martin Vorbach.

Q. And Mr. Vorbach, where do you live?

A. I have two places of living. I live in Lingenfeld, Germany and have another place in Cupertino, this is in California in the Silicon Valley.

Q. Are you married, Mr. Vorbach?

A. Yes, I'm married with my wife Suzanna.

Q. Any kids?

A. I have two kids, two sons, Adrian and Julian.

Q. And what is your relationship to the Plaintiff in this case, PACT?

A. I am the founder of PACT and the -- the CTO, the Chief Technology Officer of the company.

Q. Okay. And as you heard in the opening statement, this case is about the '181 and the '106 patents. What do have to do with those two patents?

A. I'm the lead inventor of both patents.

Q. All right. Let's talk -- begin our conversation by talking a little bit about your background. Where did you grow up?

A. I grew up in a small town in South Germany in Heidenheim.

Q. And when did you first realize that you were interested in technical or mechanical, that sort of thing?

A. When I was a kid I used to disassemble every electronic or mechanical component in our house, so it

was a nightmare for -- for my parents, that as soon as -- as I got older, with a screwdriver I would disassemble something. And after a while they thought, okay, let's give the kid something which was broken so that he don't create any mess. And they gave me, for instance, a broken calculator and I disassembled it, I tried to assemble it again, and I can say it started really with this broken calculator, I put it together and it worked, so --

Q. How old were you at this time?

A. -- this is how it happened. I was 6, 7, that age.

Q. And did you continue to have an interest in technical things when you were that young?

A. Yes, absolutely. After that I -- I started to go to the local TV shop and ask them for broken TVs, and I took them with me, and tinkered around with them just to see whether I can fix them or -- I mean, in the beginning I just wanted to have an idea how these things worked. And later on I figured out, okay, quite of -- some of them I can fix and I looked for -- for the spare parts and fixed them, and yeah, this is how -- how it began.

Q. How old were you when you were fixing TVs?

A. 7, 8.

Q. And did there come a time in which you got interested in computers?

A. Yes. In 1979, my dad's construction company bought some of the very early computers, and the funny thing was at -- at first, how shall I say -- how shall I say, the -- the concept was lock the door where the computers are and never let the kid into the computer room. He will disassemble the computers.

Now, some days in the late, late '79, they had a problem with that computer, it's a specific one. And ultimately they asked me, look at -- look at computer. Can you figure out what it is? Now, this was something completely new for me. I had never touched software or the programming level of that computer and it took me about one to two days to go through manuals and -- and just think through it, and ultimately I fixed the problem with this computer.

Q. How old were you then?

A. 9.

Q. And what did you come to think about the computers in your dad's construction business?

A. They were way too slow. I mean, as of today you can buy dishwashers which have much more computing performance just to figure out how to wash the dishes than those computers back then.

Q. So what did you do?
A. Ultimately I asked my father for permission to build my own computer system. Maybe I should say that before I did that, I was maintaining those computers already for some time and I started writing software for the company the -- the people there came to me and said well, could you write a piece of software for this or that. So I got some experience, and yeah, ultimately I asked my dad do you allow me to buy a faster computer for the company.
Q. Were you going to buy a computer or build it?
A. No, the idea, the concept was that I -- I made a schematics, a plan how to build a computer, then I made a design of the printed circuit boards, this is these boards which you see in all the electronic components or electronic devices and I went to a shop and bought the integrated circuits, all those little tiny things which are on those boards and soldered it together.
Q. How old were you when you finished this computer?
A. 15.
Q. And after you'd finished your -- the first iteration of the computer, I guess, did you continue to tinker on it?

A. Yes, absolutely. The point is the computations in constructions are very complicated, particularly if you have large buildings. You have to ensure that the building is stable and does not disintegrate, so those are complex calculations and I figured out that even this new computer was too slow and ultimately I had the idea to put multiple, many of those boards together and form a parallel computer to enhance the processing speed.

Q. What is a parallel computer?

A. You can think of a parallel computer like that it is performing many tasks at the same time. So it's not limited to just doing one task, one program, one kind of mathematical calculation, but it can do multiple at the same time.

Q. And what grade were you on when you were working on this parallel computer?

A. I was in high school.

Q. Okay. What did you do after high school?

A. I went to the German Army.

Q. Was that a volunteer, mandatory, how did that work back then?

A. It was mandatory at that time.

Q. And what was your job in the Army?

A. I was a radio operator then.

Q. When did you complete your military service?
A. This was in 1990 -- 1990.
Q. What did you do after that?
A. I went to the University of Karlsruhe to study computer science.
Q. Where is the Karlsruhe?
A. This is in the southwest part of Germany.
Q. Okay. Now, you -- do you remember me in opening discussing these things called configurable chips, do you remember that?
A. Yes, I do.
Q. Now, were these configurable chips things you were discussing or studying at the University of Karlsruhe?
A. No, back at that time, configurable chips were not -- they're known in the industry and -- and universities didn't talk about them. So the studies or the classes I took were about PCs, about personal computers like an IBM desktop computer.
Q. So how did you first learn about these configurable chip things?
A. Well, I was using, you can say, the predecessors of those chips, the so-called PLDs, Programmable Logic Devices, for the computers I had built for my father's company.

Q. Did you also hear me in opening refer to these things called FPGAs?

A. Yes.

Q. When did you first use an FPGA?

A. This was in 1995.

Q. Okay. Let's -- skipping ahead a little bit, I want to stay in your college years, and we -- we talked a minute ago about this computer that you built for your dad when you were 15 years old. Did you continue to work on it while you were in college?

A. Yes, I did. At that time, a new technology came to the market, which was called transputers. They were parallel processor -- processors which made implementing parallel computer systems easier than the old technology.

Q. And did working with these transputers spark any ideas in your head?

A. Yes, it did. Transputers were still similar to my old concept means, parallelizing compete shops, which means if you think of a company, you go to one employee and say you do -- you do this; you go to another employee and say you do that. So you -- you parallelize on a shop-level basis.

Now, the idea which, how shall I say, sparked in my mind, was that I can get a better efficiency out

of my system if I do not parallelize only on a shop basis but also, let's say, on a microbasis, means you can imagine that one single person is able to staple paper, read paper, and print paper at the same time. This is called instruction level parallelism which means handling multiple instructions at the same time.

Q. And what did you do with your new ideas about instruction-level parallelism?

A. I wrote a patent about it, which I filed in Germany in 1993.

Q. And did the German Patent Office grant you that patent?

A. Yes, it did.

Q. How old were you at the time?

A. When they granted it?

Q. Yes.

A. I filed it when I was 23. I think they granted it when I was 25.

Q. Now, is that one of the two patents that's in this lawsuit today?

A. No, it relates to different aspect of our technology.

Q. All right. I want to talk to you about the patents that are in this lawsuit today. You understand those are the '106 and '181 patents?

A. Yes.
Q. Are you the only inventor on those patents?
A. No, I invented those patents together with Mr. Robert Munch.
Q. Now, this Robert Munch, when did you meet him?
A. I met him at the University in Karlsruhe.
Q. Was he a professor, student, what was he?
A. He was a student. We had the same classes together and this is where I met him.
Q. And at that time did you-all agree to work together?
A. Yes. We decided to found a company which would do business in the construction area with my knowledge, also the medical area, and I would -- I wanted to continue the research on those transputers on those parallel processing technologies.
Q. What did you name this new company?
A. We gave it an acronym it was SCRIP, which would be SCRAP in English.
Q. SCRAP is not a really good name for a computer company in the construction business, is it?
A. No, absolutely not, but you've got toward the German centric at that point in time and didn't think about the -- the English word, the English translation.
Q. So what sort of things did SCRAP -- what sort

of industries did SCRAP end up working in?

A. Well, as that we work -- we were working in the construction industry, so we were providing software to construction companies. We were writing software for the medical industries, industries for doctors. This, by the way, how I met my wife, she's a nurse by education and well our most famous customer was certainly Porsche, the car company, they used our computer systems for information terminals at trade shows.

Q. Now, you said that you were working with SCRAP with Mr. Munch; is that correct?

A. Yes.

Q. How did you divide up job responsibilities at SCRAP between the two of you?

A. Okay. Mr. Munch was a very good programmer, so we said -- or we decided that he will do the software tasks. I on the other hand, I mean, I was writing software since I was 9 year old, so I was a bit tired of it and wanted to focus on the hardware development.

Q. Can you just explain to us what's -- what's hardware?

A. Okay. If you go to a computer store and you buy this metal box which you carry home, this is the hardware, the computer system, this metal box you carry

home is the hardware. Now, if you compare it to software, software would be if you put a DVD in the drive and you load software like a word processor, then this is the software means the -- the thing which tells the computer what to do.

Q. Now, what was it like working with Mr. Munch back at SCRAP?

A. It was a bit rocky, honestly. So we got some issues, and split up for a while.

Q. Did you get back together?

A. Yes. After about a year we sorted those issues out and we started working together again.

Q. All right. Now, while you were at SCRAP, were you still in college?

A. Yes.

Q. Did you finish your college degree?

A. No, I did not. At some point in time I had to make the decision do I want to focus on the business and the company or do I want to spend the time for my studies. It was an either/or, either/or decision and I decided for the company.

Q. So what happened to SCRAP?

A. One of our sales guys figured out about this patent I had for instruction of parallelism processing, and he was pushing us to implement it. We figured out

that this required so much money we couldn't use the income which the company generated, so we -- so we decided to go out and look for investors.

Q. And did you find that money?

A. Yes, we did.

Q. After you got those investments, did you form a new company?

A. We formed a new company. This is called PACT.

Q. What does PACT stand for?

A. Processing Array Computer Technology.

Q. So did you pay attention to the English that time?

A. This time, yes.

Q. When did you form PACT?

A. This was 1996.

Q. And is the PACT back from 1996 the same PACT that's the Plaintiff in this lawsuit?

A. Yes, essentially it is. We went through through -- through a few name changes, mainly we changed the extension of PACT when it means -- it was first PACT Technologies, GmbH, then it became PACT XPP Technologies, so this -- words changed. Also we changed the form, the legal form, from a German GmbH to an AG. An AG is similar to a U.S. Inc., but essentially it's the same company.

Q. Do you still work for PACT today?
A. Yes, I do.
Q. Full time or part time?
A. Part time.
Q. What do you do with the rest of your time?
A. I am forming right now another company which, again, is focusing on computer technology but a different technology.
Q. Do you draw a salary from PACT?
A. I do.
Q. I want to show you DX 915. I think you've got two binders up there in front of you?
A. No.
Q. Don't have the binders.
MR. GRINSTEIN: Your Honor, may I approach?
THE COURT: Yes.
Q. (By Mr. Grinstein) There are your binders.
A. Thank you.
Q. I think this exhibit is going to be in binder No. 2. You could also look up at the screen on it.
A. Okay.
Q. Okay. Can you -- can you tell us what DX 915 is?
A. This is an English translation of my current

contract with PACT.

Q. And when did you enter into your current contract with PACT?

A. This was in February 2011.

Q. Okay. And under this contract with PACT, are you entitled to any of PACT's income?

A. Yes, I am.

Q. How does that work?

A. I get a percentage on PACT's income. This is 8 percent on all -- all income above $6 million and the percentage increases as the income of PACT increases.

Q. What qualifies as income?

A. Sales of products, licensing of designs, licensing of patents, sales of patents, this lawsuit, for instance, just every kind of income.

Q. All right.

MR. GRINSTEIN: Take that down with you.

Q. (By Mr. Grinstein) I want to change subjects now and talk to you about the technology in this case.

Now, did you hear me in the opening statement refer to this bus interface technology?

A. Yes.

Q. Okay. Now, I want to be really careful here. The Court has defined some of the terms for the jury and I do not mean for you to be redefining what the patents

mean or what the terms mean. I just want you to explain when you were developing these inventions, what did you understand a bus interface to be?

A. Okay. In very broadly spoken, it's the means to move data between inside a chip and the outside world.

Q. And just so we're all on the same page, what's a chip?

A. A chip is -- is -- how shall I say, it's an electronic component inside a computer, for instance -- for instance, or inside a mobile phone which moves, stores, processes data. So it's -- you can say the brain inside your computer system or inside your TV, your electronic -- your electronic devices.

Q. What year did you come up with the ideas that led you to file for the patents that are in this lawsuit?

A. This was when I designed the emulator in 1995.

Q. Okay. Let me show you Demonstrative 1. Hold it up right there and then I'll put it under the ELMO so everyone can see it a little easier. What is Demonstrative 1?

A. This is the emulator I designed in 1995.

Q. What is an emulator?

A. Okay. If you design chips, the chip design is

very expensive. It costs a lot of money. It's similar to designing an airplane or designing a car. So before you really built the first, let's say, airplane or car, you want to simulate that it really works. It's -- it's similar with chips. You want to simulate whether your chip design works and this is what, for what we are using in the electronic world, emulators just to simulate our design, our concept.

Q. Well, I guess one thing I don't understand, Mr. Vorbach, is computer chips I've seen are really small and this thing looks pretty big. So why the difference?

A. Okay. You can say it's the other way around compared to airplanes. If you simulate the airplane, your computer is pretty small and the airplane is pretty big. Now, in our world, the emulator is pretty big and the final chip is rather small. So it's the similar relationship.

Q. Let's take a look and see if we have something that can explain that. Right now I want to show you Demonstrative No. 2. And can you tell us what Demonstrative No. 2 is?

A. Yes, this is a so-called wafer. On this wafer disk are -- on this particular one are 65 of our XPP 128 chips.

Q. So these are PACT chips on this wafer?
A. Yes, those are ours.
Q. And just in terms of raw materials and money and everything, how much did it cost PACT to generate this wafer?
A. At that time, approximately $750,000.
Q. Is that the reason why you simulate a chip design on an emulator like that?
A. Yes. Absolutely, yes.
Q. All right. I want to go back and talk to you a little bit more about this emulator board. Now I'm going to flip it over. And if I can figure out how to zoom, I'm going to zoom up, turn that around. There we go.
Right there I see some writing on -- on the emulator board -- and maybe I'll zoom a little bit more so it's easier for folks to see. That writing says SCRAP 1995 M. Vorbach; can you explain what we're looking at right there?
A. Yes. This means I have designed this board in 1995 while I was working inside the company SCRAP.
Q. That's your name on there?
A. Yes.
Q. Is Mr. Munch's name on there?
A. No.

Q. Now, I'm going to flip this emulator board over again, and on this board, I see these four big chips right there. And we'll take it out a little, zoom it out a little bit. I see these four big chips right here.

A. Yes.

Q. What are those?

A. Those are Altera FPGAs.

Q. Who is Altera?

A. Altera is the second larger maker of FPGA devices in the market.

Q. Okay. Why did you put FPGA chips on your emulator board?

A. Well, FPGA chips comprise configurable logic, so you have small cells in them which you can -- can configure to perform -- to perform any function which you like them to perform. So if you implement a piece of hardware, the ideal platform to use as you can make them behave like the design you want actually to build.

Q. And so what did you do with this emulator board after you built it?

A. The concept was to -- yeah, to configure the FPGAs to behave like my instruction level parallelism processor.

Q. Okay. Tell the jury what it was that sparked

the idea in your head that led to the inventions in this case.

A. Okay. Can I have a laser pointer?

Q. Is there a laser pointer up there?

MR. GRINSTEIN: Sorry. May I approach again, Your Honor?

THE COURT: Yes.

A. You can see here that several chips, those -- those are, by the way, chips, are surrounding those four FPGAs. We have a bank of chips here, we have another bank of chips here, third one here, and another one which looks differently here. Also you can see that this chip bank again looks different from those two and you can see that here is a further chip which says video on it.

So the issue I had with this board was that I had to build interfaces, means I have to enable this FPGAs to talk with all those surrounding chips. And I figured out that instead of, how shall I say, focusing on my design on the thing I really wanted to build, I had -- I had to base even months, not only week, but months of work, of design work, to implement the interfaces to talk to these surrounding devices.

Q. (By Mr. Grinstein) Did you like doing that?

A. Not -- not at all. I mean, it was a waste of

time for me.

Q. Did configuring those interfaces also cause you space problems on those chips?

A. Yes, absolutely. The space, I mean, I wanted to use the space inside these devices for my design for the thing I wanted to build. But instead of -- of having or using the space for my design, I had to waste the space, or a significant amount of the space, such to integrate the interface for talking to the surrounding units on the board.

Q. And what did doing all that integrating do to the speed and the power on this thing?

A. Well, a significant issue, for instance, I had here with the video interface, you know, video is a lot of information, so to produce a picture, to produce a movie, you know how much data today is on a Blu-ray or on a DVD. So you have to transport a large amount of data between your processor and this thing which brings the picture to your screen. So I had significant speed issues here, and this was the first problem.

The second problem was that I had or I saw that I waste a lot of power, I used a lot of energy just to provide the power, the -- the -- yeah, the energy to the units managing the interface or being the interface.

Q. So did all those ideas or all those issues

spark any kind of idea in your head?

A. Yes, I -- I had the idea it would be much nicer if I had permanent interfacing circuitry on this board, which would be there. I would not have to take care about that -- that interfacing circuitry. It's there. It doesn't waste my time. It doesn't waste space and energy on the system. Also the idea was if I have an optimized interfacing circuitry, it is optimized, it is -- it is permanent. It's made for this purpose. So I can optimize the power dissipation and the speed significantly compared to a -- to a -- to a implementation where I have hundreds or thousands of logic cells which consume much more power which are much slower simply as it is larger, the signals require more time to travel through this large area.

It's like drive in a car. If you go to a city close by, it's quick. If you drive from here to Dallas, it takes you a long time. It is -- it is similar there. So I had a significant improvement in time as I was optimized. I had a significant improvement in power dissipation as that was optimized.

Q. So just so we're clear, what do you mean by permanent?

A. Permanent means that a predefined interface was sitting there, which was built for the purpose of

interfacing. Now, it could, for instance, interface to these devices or it could interface to those, to this or this, which means think of -- of it as -- as a translator. Imagine you are going to Germany or Japan. Now this would mean that -- or you may want to learn the language so that you can communicate with the people there.

Now, if you sit down, learn the language, it takes you months, years maybe to learn this language. On the other hand, you could say, well, I get a translator for me, a dedicated permanent translator which is with me, and use this person to translate from English to German or to Japan -- to Japanese. On the other hand, you could tell your translator which language the translator shows me. Means in that case, here I would tell this translator speak to these particular chips. You see they look different than those chips or this chip or this interface block here.

So the idea was having a translator there but being able to tell the translator speak the language those chips are talking or speak the video language for this chip. Speak the memory or the -- the -- yeah, the language for this chip or speak this -- this language for this interfacing unit on the left corner.

Q. So just so your analogy is clear, in your

analogy, what is the translator?

A. The translator would be my permanent bus interface.

Q. And in your analogy do you ever give instructions to your translator or do you just take your translator out of the box and forget about him?

A. No, I would have to tell the translator, do you speak this language, do you speak the -- the video language or do you speak, for instance, this language or there which, again, looks completely different.

Q. Do you have to teach your translator those languages?

A. No, I program it and tell him to speak -- speak this language.

Q. Now, did you write down any of your ideas for this permanent bus interface invention?

A. Yes. At the time I was -- I was designing this board, I made -- I made drawings. I made -- I made schematics and drew diagrams for it.

Q. Let's take a look at Plaintiff's Exhibit 89, and you might want to look in your book on this one. It's in your book on this one, Mr. Vorbach. It should be in the first book.

A. Okay. 89?

Q. 89.

A. Okay. I've got it.
Q. Can you tell us what Plaintiff's Exhibit 89 is?
A. Those are some of the drawings I made in the -- yeah, you can say in the early days when we were doing the conception of our technology.
Q. Turn with me to the page that's labeled 704.
A. 7 -- I'm there.
Q. What's this drawing?
A. This is -- this drawing shows the interfacing circuitry. You can see here we have here configurable components. In our technology, we call them PAE. So this is the configurable part of the -- of the chip of the design.

We then have lines going from the configurable components to this block called IORT. Now, those -- those lines are many wiring which carry electrical or electronic signals.

Here the IORTs, these are particularly the parts I'm talking about. You can see here four of them. Here's one; here; here's another one; and here's yet another one (indicates). And those IORTs are getting the internal lines. They are combining the lines and forming a bus system, which is then in communication which -- with the external units.

You can see here ex RAM. This means external read access memory. RAM is a term in our industry.

Q. So just so we're clear, these IORTs, what do those have to do with your invention?

A. Those IORTs are the permanent bus interfaces on the chip.

Q. All right. Up there in the right-hand corner, I see a little indication.

MR. GRINSTEIN: Matt has helped blow it up for us.

Q. (By Mr. Grinstein) Can you tell us what that indicates?

A. Yes. This means -- M.V., which I wrote the drawing, Martin Vorbach. And this date is actually the German writing of a date. In Germany, you have the day first, then the month, and then the year. So this was done June 29th, 1995.

Q. That's the date of this particular drawing?

A. Yes.

Q. And M.V., who does that M.V. stand for?

A. It's me, Martin Vorbach.

Q. Is Robert Munch on this drawing?

A. No.

Q. Now, did you actually ever implement the concepts in this drawing in anything?

A. Yeah. First of all, we used it on this emulator board to interface with the surrounding -- with the devices surrounding the FPGAs.

Q. Can you explain?

A. Yeah. I -- I configured this -- you can say this interfacing units together with the PAEs with our configurable technology inside the FPGAs to simulate, or as we say, to emulate our design. So it was inside the FPGAs.

Q. And, Mr. Vorbach, I think it might be a little bit better if you came forward a little bit.

A. Oh, I'm sorry. Yeah.

Q. There you go.

Now, other than work on this emulator board, what did you do with your new ideas about this permanent bus interface circuitry?

A. We filed a patent in Germany.

Q. And when did you do that?

A. This was 1996.

Q. Were you the only inventor listed on that patent?

A. No. We also listed Robert Munch.

Q. Who was listed first?

A. It's me.

Q. Why?

A. Well, first of all, the clear definition inside SCRAP was I'm the hardware guy. I'm doing the hardware work. Robert Munch was doing the software work. So naturally, it was my work. As you also can see on the emulator board, I did it, so I was listed first.

Q. Just to be clear, when you filed this patent application, was it SCRAP or was it PACT? It was 1996?

A. 1996 was already PACT.

Q. So you -- the decision was made to list you as the first inventor; is that right?

A. Yes.

Q. Did Mr. Munch argue about that?

A. No. It was clear that -- that this was a hardware task, that I made this invention. This was my job.

Q. Well, can you describe Mr. Munch's role in these inventions?

A. Yes. He took, how shall I say, the preconfigured board, so to say, and then put his software on the boards, which means we had two levels of programming. First was just to make the board look like we wanted it to look to simulate our design, and then he later claim and he worked with the design, programmed it, and tested software, tested algorithms on that

design.

Q. So do you dispute that he's a co-inventor?

A. No. Absolutely not, no.

Q. Now, did you eventually apply for some United States patents on these particular inventions?

A. Yes, we did. In 1997.

Q. Let's run through those patents very quickly. I want you to look at Plaintiff's Exhibit 4. You've got a copy. I've got the original of Plaintiff's Exhibit 4 right here.

Do you see Plaintiff's Exhibit 4?

A. Yes.

Q. And what is Plaintiff's Exhibit 4?

A. This is the original United States patent, which we got issued.

Q. And why does it have this fancy ribbon thing on the front?

A. This says that this is the original patent, which is USPTO, the U.S. Patent Office, has issued to us.

Q. Okay. Can you turn to the second page of PX 4, and I just want to discuss with you some of the things that are said on this particular page.

First of all, when did you apply for this patent in the United States?

A. We applied for it in -- on October 8th, 1997.
Q. Was it related to any previous patent applications?
A. Yes, it was. You can see two lines below, it first says foreign patent -- foreign application priority date. And there it says December 20, 1996, Germany, and the application number was 196 54 595.
Q. Is that the German patent that you just discussed, the patent application you just discussed?
A. Yes. Exactly. This is the patent we filed in Germany.
Q. Was there any difference between the patent application that you filed in Germany and the patent application that you filed in the United States that led to this patent?
A. No, only the -- the language is different. It has been translated to English.
Q. Okay. When did the United States Patent Office issue this patent?
A. This one got issued September 12th in 2000.
Q. Now, we mentioned that you applied for the German patent in December 1996, so is that when you conceived of the inventions in this patent?
A. No, actually not. This was when we built this, this emulator board in 1995.

Q. How would you describe the inventions in this patent?
A. I would look to the claims.
Q. Okay. So if you flip to the back of the patent, last couple pages, this area right here (indicates), are you saying that that is what describes your inventions?
A. Yes, those are the claims. This is the definition, the description of our inventions. Yes.
Q. Do you and Mr. Munch still own this patent?
A. No. We assigned it to PACT.
Q. Let me show you Plaintiff's Exhibit 781 (sic).
MR. GRINSTEIN: Maybe if you go three pages in, please, Mr. Boles.
Next page.
Q. (By Mr. Grinstein) If you want to look at it on the screen, it might be a little easier.
What is Plaintiff's Exhibit 781 (sic)?
A. This is the assignment -- this is the assignment document where we assigned the patent to the company, PACT.
Q. And I see one of the parties is PACT GmbH. Did that eventually become PACT in this case?
A. Yes, exactly.
Q. So does the Plaintiff PACT in this case own

the '181 patent?

A. Absolutely. Yes.

Q. Let's switch patents. I want to talk about PX 5, this guy.

And if we look at the second page of PX 5, tell us which patent PX 5 is.

A. PX is a continuation -- it's -- it's the '106 patent.

Q. Okay. And is PX 5 related to any previous patent applications or patents?

A. Yes. It's a continuation of the '181 patent. You can see that in Line 63.

Q. Right there (indicates)?

A. Yes. Here it says continuation of application number, and it's filed on October 8th, 1997, now, patent 6,119,181.

Q. Okay. And when did you file for this particular application?

A. We filed this June 18th, 1999.

Q. And it was issued when?

A. January 8th, 2002.

Q. Just so that we have everything complete, can you look at Plaintiff's Exhibit 781 (sic) and --

MR. GRINSTEIN: 781 (sic), please.

Q. (By Mr. Grinstein) What is Plaintiff's Exhibit

781?

A. This is the assignment document where I --

Q. I'm sorry. It was 780. My mistake. 780.

A. Okay. This is the assignment document where I and Robert Munch assigned the '106 patent to PACT.

Q. Okay. So does the Plaintiff in this case, PACT, own the '106 patent?

A. Yes. Absolutely.

Q. And, again, how would you describe the inventions in the '106 patent?

A. I would, again, look to the claims.

Q. Now, internally within PACT, did PACT have a way of referring to the '181 and the '106 patents?

A. Yes. We called that the PACT 03 patent family.

Q. Can you explain that?

A. We have a lot of patents inside PACT, and some, how shall I say, are similar or based on a similar specification, a similar content. And we grouped those together. And in the PACT 03 family, we have the '106, the '181, and others. I think three, four, five more.

Q. All right. So if folks see during this case documents that mention PACT 03, are you talking about the '181 and the '106 patents?

A. We are talking mainly about the whole family,

the content of the family.

Q. Are there more than just the '181 and the '106 in the PACT 03 family?

A. Yes. I think there are three, four, five more in this family.

Q. Let's turn our attention away from the patents and talk to you a little bit more about the history of PACT.

A. Okay.

Q. Now, I think you mentioned earlier that PACT was formed in '96, after you got some investments; is that right?

A. Yes.

Q. At some point in time, did you go out and look for more investments for PACT?

A. Yes. Once we had the design working on this emulator board, we went out to look for more money in order to implement the first chips.

Q. Did you get more money?

A. Yes, we did.

Q. And what did you do with it?

A. We actually implemented these chips. You showed the wafer, so this is what we did with the money.

Q. All right. Let me show you Demonstrative 3, and can you explain for us what Demonstrative 3 depicts.

A. Yes. This says it's the first generation of our technology, which we call the XPP 1 design, which means the XPP 1 first technology. And based on this technology, we built a chip which was called the XPP 128.

Q. Now, just to be clear, was -- this XPP 128 chip, did it just have a bus interface and nothing else in it?

A. No. Certainly, we had other components in it, our reconfigurable elements.

Q. Okay. When did you finish the design on the XPP 128 chip?

A. This was -- I remember this well -- December 31st, 1999.

Q. Trying to get it in before the end of the 20th century?

A. Yes.

Q. Okay. After you finished the design, what did you do next?

A. We went to Fab. Fab is a company which builds those wafers, which actually manufactures the chips, and started with the manufacturing of those wafers.

Q. And so is that what we're looking at in Demonstrative No. 2?

A. Yes. Exactly.

Q. This is a wafer of what?
A. Of the XPP 128 chip.
Q. Where was this wafer made?
A. In Korea.
Q. And so if I wanted to use the chips on this wafer, could I take this wafer and plug it in a computer and start using it?
A. No. This wouldn't work. You have at first to saw the chips out of that wafer. You see, there are many rectangles on it, so such 1-by-1-inch rectangle is a chip.

You saw them out of the wafers, so you get the bare chips, the raw chips, and then you put those chips into a package. And this packaged device is what you can put into a computer.

Q. I've got one more toy to show you. Demonstrative No. 4.

MR. GRINSTEIN: We're going to put this -- can I have the ELMO, please?

Thank you.

Q. (By Mr. Grinstein) What is Demonstrative 4?
A. This is the XPP 128 chip. If you would break this package, you would find such -- such a chip inside it.
Q. Now, was -- this chip I'm holding in my hand

right now, was this ready to be sold as a commercial product?

A. No.

Q. Why not?

A. The pads inside the chip were not production-ready.

Q. What's a pad?

A. A pad, you can understand it as surge protectors, protector for chips.

Q. Okay. So even though the pads on this thing were not production-ready, could you test it?

A. Yes. You could perfectly test it under the laboratory conditions, or if you are very careful how to handle the chip. So what you are doing --

Q. Not a good idea?

A. -- throwing it around, would kill it.

Q. I'm sorry.

So what did you do with these chips which you handled more carefully than I'm handling your chip now?

A. We put them on a -- on a demonstrator board and demonstrated them in October 2000 on the Microprocessor Forum in San Jose.

Q. San Jose where?

A. California.

Q. What was the Microprocessor Forum?

A. The Microprocessor Forum was, you can say, kind of prestigious gathering of electronic engineers, so all big semiconductor companies like to show their newest designs there. IBM was there, Intel, Texas Instruments, all the big guys.

Q. And is that why you went?

A. Yes, absolutely. Yes.

Q. Okay. Let's take a look at Plaintiff's Exhibit 15.

A. 15.

Q. Can you tell us what Plaintiff's Exhibit 15 is?

A. Yes. This is an article which was written about our technology. It says PACT debuts -- debut, sorry -- I'm not sure how it is pronounced -- Extreme Processor. And this was written around the same time. I think it was exactly -- it was exactly the same date when we showed -- when we presented our XPP 128 design.

Q. And the first paragraph in this article from Microprocessor Report says: Combine the reconfigurability of an SRAM-based FPGA with a large array of ALUs and you get potential for tremendous flexibility and performance. PACT's new Extreme Processor Platform delivers that combination along with some serious questions.

Do you see that?
A. Yes.
Q. Was that typical of the feedback that PACT got about this XPP 128 chip?
A. Yeah, this was very typical. People liked, how shall I say, the new design, the new technology. They liked the high performance which we could deliver, but they were in doubt whether we are too far ahead of the market and whether there was any market for this device.
Q. Did PACT receive other good press about its technology?
A. Yes, we did.
Q. Let's take a look at PX 753, please. You can look up at the screen, if that's a little bit easier for you, Mr. Vorbach.
A. Yeah, that's easier.
Q. What is PX 753?
A. This is an article about nominees named for an award called Most Important Products and Technologies in 2002.
Q. And on the second page of PX 753, does it discuss PACT?
A. Yes. It says PACT's XPP is designed to support multiple parallel threads among its 128 on-chip

processing element.
Q. So is PACT being nominated for this award?
A. Yes, we were.
Q. Let's take a look at PX 452. This is this Microprocessor Report again.
A. Okay.
Q. Is this a really popular magazine in the microchip industry?
A. In the microprocessor world, it was.
Q. Okay. What's PX 452?
A. This is an article about -- about high-performance processor devices.
Q. Turn with me to Page 4 of that article. And right there, can you read that paragraph that starts after MPR analysts make their choice, read the first opinions.
A. NEC's DRP and PACT's XPU 128 lead all the others in architectural performance by delivering 512 byte-operations per cycle.
Q. Is that a good thing?
A. That's a great thing.
Q. Let me show you another exhibit, DX 582.
MR. GRINSTEIN: Can we take a look at DX 582?
Q. (By Mr. Grinstein) And DX 582 appears to be an

e-mail from a Mark Seager around September 2000.

Do you see that?

A. Yes. Yes.

Q. Were you a recipient of this e-mail?

A. Yes, I was.

Q. Who was Mark Seager?

A. He was with Lawrence Livermore National Laboratories located in Livermore, California.

Q. That's what that llni.gov (sic) address means?

A. Yes.

Q. What is Lawrence Livermore National Laboratories?

A. It's a U.S. government institution. They have -- yeah, you can say they have the most advanced and fastest supercomputers in the world there.

Q. And what did Mr. Seager have to say about PACT's technology?

A. You have -- you have very good technology.

Q. Said you have good technology?

A. Yes.

Q. It doesn't say very. Let's not add that in. The -- how did it make you feel when Mr. Seager told you you have good technology?

A. I was happy about it. I was proud of it. I mean, it's -- it's a big thing. The Lawrence Livermore

Laboratories are, how shall I say, very respected in -- in the world. They are simply the -- the most advanced supercomputer center in the world.

Q. Well, all this sounds great. Did -- I take it, then, that no one ever criticized PACT's technology and everyone thought it was great?

A. No. We also received other articles. I mean, there are always guys on the other side, too.

Q. All right. Let's go back to the time of that 2000 Microprocessor Forum.

Now, this chip right here, this XPP 128, was PACT actually selling this at the forum?

A. No. As I said, they were not production-ready.

Q. Did it eventually offer to sell it to anyone?

A. No.

Q. Did you ever manufacturer a commercial version of this chip.

A. No, we never did.

Q. So this thing was a failure, right?

A. I wouldn't say so, no.

Q. Well, why not?

A. Well, right after the Microprocessor Forum, it was approached by EADS Astrium. This is a European company making satellites and rockets for EADS. EADS is

the European you can say counter part to the U.S. NASA.
Q. And what did EADS Astrium want with you?
A. They wanted to use the XPP 128 on their satellites. The problem they have there is you have very little power there on the satellites. Power dissipation is an issue, and also you require very high performance on the satellites. I mean, it's more performance you can put on the satellite. It's more the satellite can do means you have less satellite launches, which saves you a lot of money.
Q. So did EADS Astrium get anything from PACT?
A. Yes. They acquired a license from us for the second generation of our design, the XPP II design, and then upgraded the license to the third generation, XPP III.
Q. And so are XPP 128 or XPP chips in satellites today?
A. The last I heard is that they are launching the satellites or the first satellites this year.
Q. And will it actually be a PACT chip that gets launched or PACT design?
A. It's a PACT design. They are using our design, our technology, and are implementing their own chips for space applications.
Q. If someone were to say in opening that PACT

had never licensed its technology and every single person they approached rejected it, would that be true?

A. No, definitely not.

Q. How long -- so how long has PACT's relationship with Astrium lasted?

A. It's still ongoing.

Q. All right. One more time pulling us back to the Microprocessor Forum in the year 2000, what was Mr. Munch's relationship with PACT at that time?

A. This was about the time that we parted ways.

Q. Why?

A. Robert Munch felt he has no -- there is no place for him at PACT anymore, and he wanted to go his own way.

Q. Are you mad at him for leaving?

A. No, absolutely not. This was his personal decision, and I respect that.

Q. What was PACT's next project after the XPP 128 design?

A. PACT started to implement or work on the XPP II architecture and implemented the XPP 64 chip.

MR. GRINSTEIN: Can we look at Demonstrative 5, please.

Q. (By Mr. Grinstein) What does Demonstrative 5 depict?

A. Yes. Here you can see it's the second generation of our technology. We called it XPP II, the technology by itself, and produced the XPP 64 chip.

Q. And were you personally involved in the design of the XPP 64 chip?

A. No, I was not.

Q. Well, do you know if PACT ever produced any working XPP 64 chips?

A. Yes. We produced working samples of the XPP 64 chip.

Q. What did PACT do with them?

A. Pardon?

Q. What did PACT do with them?

A. Those chips were targeting the European telecommunication market. Back in the early 2000s, all the big telecom players were located in Europe, so the chip design was specified together with Siemens, focusing their base stations, their -- how should I explain the base stations -- their antennas, which interface with your -- with your mobile phone.

Q. Where was the -- where were the XPP 64 chips made?

A. In Grenoble, France.

Q. Did you ever sell any XPP 64 chips in the United States?

A. No. We did not. This was completely European industry.

Q. So I guess you never offered to sell it in the United States?

A. No, we did not.

Q. So you said you were not involved in the XPP 64 design.

What were you doing during the time of that design work?

A. I moved already ahead to the XPP III technology.

MR. GRINSTEIN: Can I take a look at Demonstrative 6, please.

Q. (By Mr. Grinstein) What does Demonstrative 6 depict?

A. This shows the third generation of our technology, which we called XPP III.

Q. And I see that there's not a chip associated with your third design, although there is one with your first two. Why is that?

A. We did not build an XPP III chip.

Q. So I take it from that, did you ever sell an XPP III chip in the United States?

A. Without having one, this wouldn't work, no. We'd never -- we never sold one.

Q. Did you have a chip that you could offer to sell in the United States?

A. We never -- we never designed one, no.

Q. Let me ask two concluding questions on this point.

Did PACT at any time ever make, sell, or offer to sell in the United States a product that was an embodiment of the inventions of the '181 patent?

A. No. Absolutely not, no.

Q. Did PACT ever make, sell, or offer to sell in the United States a product that was an embodiment of the inventions in the '106 patent?

A. Also clearly, no.

Q. All right. I want to change focus right now and talk about Xilinx.

THE COURT: Would this be a good time to break for lunch?

MR. GRINSTEIN: I think it would be a great time, Your Honor.

THE COURT: All right. Then we're going to break for lunch until 1:15. I'd ask the jury to be back in the jury room at that time, and we'll start back up promptly.

Thank you.

LAW CLERK: All rise.

(Jury out.)

THE COURT: Thank you. Please be seated.

Before the rest of us break for lunch, I just wanted to find out where we stand with respect to the issue regarding the deposition designation. Is that still a live issue? If not, I'd like to figure out a time to resolve it.

MR. GRINSTEIN: I think Your Honor's ruling with respect to the untimely designations resolved the issue.

Is that correct?

THE COURT: All right.

MR. GRINSTEIN: That is an issue off the table.

THE COURT: Then we'll return at 1:15. Thank you.

LAW CLERK: All rise.

(Lunch recess.)

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CERTIFICATION

I HEREBY CERTIFY that the foregoing is a true and correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of my ability.

/s/_____ _____
SHELLY HOLMES, CSR Date
Official Court Reporter
State of Texas No.: 7804
Expiration Date 12/31/12

/s/_____ _____
SUSAN SIMMONS, CSR Date
Official Court Reporter
State of Texas No.: 267
Expiration Date 12/31/12